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A DESCRIPTIVE SURVEY OF ACADEMIC PREPARATION IN
POLITICAL SCIENCE IN RELATION TO SELECTED
POLITICAL ATTITUDES OF URBAN SECONDARY
SOCIAL STUDIES TEACHERS OF ALBERTA

by



CONDE ROSAIRE GRONDIN

A THESIS

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FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "A Descriptive Survey of Academic Preparation in Political Science in Relation to Selected Political Attitudes of Urban Secondary Social Studies Teachers of Alberta," submitted by Condé Rosaire Grondin in partial fulfillment of the requirements for the degree of Master of Education.

ABSTRACT

This study examined the academic qualification in political science of a selected group of urban secondary social studies teachers of Alberta. The study also attempted to quantify objectively these same teachers' feelings of political cynicism, political alienation, sense of political efficacy, sense of citizen duty and personal cynicism. Of special interest in the study was an appraisal of the outcome of formal academic training in political science, or its absence, upon teachers' own political and personal feelings.

Data were obtained from a questionnaire and a battery of political attitude tests through correspondence with secondary social studies teachers concerned. These data were analyzed statistically in terms of the significance of the difference between and among group means, step-wise multiple regression, and Pearson product-moment correlation and tests of significance using the distribution of t .

It was found that, of the two hundred and sixty-three teachers investigated, one hundred and nineteen had no university political science education, and only seven had political science degrees. It was concluded that, generally, these two hundred and sixty-three teachers had inadequate formal preparation to teach political science understandings and concepts.

Results of the battery of political tests revealed that, preponderantly, those secondary social studies examined in the study tended to disclose more positive feelings than negative feelings towards politics.

No significant statistical relationship was found between formal academic training in political science, or its absence, and any of the selected political and personal attitudes empirically measured in this investigation.

This investigation also found that sex, school board, age and voting in last municipal election variables, four out of twelve selected relevant background characteristic variables of urban secondary social studies teachers, statistically, made significant contribution to the prediction of particular political and personal attitude scale scores. These four variables are tentatively selected to be included in further investigation of the foregoing prototype.

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CHAPTER I

THE NATURE OF THE STUDY AND DEFINITION OF TERMS

I. INTRODUCTION

A democratic people must understand and appreciate the character of their society, its goals and purposes, its limitations, its methods of operation, and the boundaries of reasonable choice in their nation and the world of which they are a part.¹

If a democratic nation is to survive, its populace must play an active role in the political processes and must have an understanding of the political system and its setting. Consequently, people should have an understanding of methods of gathering, ordering and using political knowledge so as to be able to cope with political questions. Their faith in the democratic society must be established and maintained. They must be provided with the knowledge and intellectual skills that will enable them to function as effective and responsible citizens,² and to participate meaningfully in the political life of their society.

One of the fundamental conditions for the survival of a political system is that the young people must acquire the knowledge, values, norms

¹Robert E. Cleary, and Donald H. Riddle, "Political Science in the Social Studies," Political Science in the Social Studies, Thirty-Sixth Yearbook of National Council for the Social Studies, (Washington, D. C.: National Council for the Social Studies, 1966), p. 1.

²Lewis Paul Todd, "Afterword: Revising the Social Studies," The Social Studies and the Social Science, Sponsored by the American Council of Learned Societies and the National Council for the Social Studies, (New York: Harcourt, Brace and World, Inc., 1962), p. 289.

and attitudes expected from members of the system.³ This highly complex process of induction into the political culture may be referred to as "political socialization or politicization."⁴ This process continues throughout the life-time but its imprint is most pronounced during the impressionable formative years of youth.

It is apparent that the educational system is one of many agencies and mechanisms in society which contribute to the politicization of members of a political system. The school's role will be limited in assisting individuals to build sophisticated socio-civic behavior and political knowledge, though educational experiences at all levels may suppress, substitute for, or transcend earlier familial experiences and shape basic attitudes that an individual acquires about political processes.⁵ The school's limited role in the process of politicization is in part the result of the school program and of teachers of social studies courses. Curriculum cannot and should not be shaped to assume total responsibility for the political socialization of individuals. It is only one of several factors within the school that influence educational outcomes. Likewise, methods and personal characteristics of social studies teachers are in many ways as determinative of the results

³David Easton, "The Function of Formal Education in a Political System," The School Review, Vol. 64 (Autumn, 1957), p. 311.

⁴Ibid.

⁵James S. Coleman, "Introduction: Education and Political Development," Education and Political Development, James S. Coleman, editor (Princeton: Princeton University Press, 1965), p. 21.

as is the curriculum.⁶ In the end, teachers of social studies courses determine, to a degree, the success or failure of school programs.

In today's complex world, social studies teachers at the secondary school level play an extremely difficult and significant part in the process of forming the political orientations of their students.⁷ In the context of their classrooms, students will form and be exposed to a wide variety of attitudes about political objects and events. Here, social studies teachers become an integral part of the overall effort to instill in youth the civic virtues and democratic ideals necessary for them to become competent citizens, prepared to carry out the civic duties placed upon them in a democratic state. While existence of this obligation has been recognized by educators,⁸ adoption of procedures by which these goals might be achieved has not been done. Roy A. Price attributed this failure in part to weaknesses in programs of teacher education. Teacher preparation programs do not equip teachers with a realistic knowledge of social, economic and political forces and

⁶Edgar B. Wesley, and Stanley P. Wronski, Teaching Social Studies in High Schools (fifth edition; Boston: D. C. Heath and Company, 1964), pp. 42-43.

⁷Ernest Simon, "The Problem of Transfer,"; and Eva M. Hubback, "The Moral Approach," Education for Citizenship in Secondary Schools, Issued under the auspices of the Association for Education in Citizenship, (London: Oxford University Press, 1936), p. 24, 37.

⁸Province of Alberta, Department of Education, Senior High School Curriculum Guide for Social Studies 10, 20, 30 and 33 (Interim) (Edmonton: Department of Education, 1967), p. 9.

how these forces operate in community life.⁹

As Fenton has noted, without extensive training in the social sciences, social studies teachers will be unable to grasp a conceptual approach to the social studies, or to communicate it to students. It is his view that the new social studies requires knowledge of all the social sciences, not just one or two, inasmuch as it demands a conceptual approach taught by inquiry, not an attempt to cram home facts by drill.¹⁰ If teachers are to understand structure well enough to transmit it to their students, subject depth in the social sciences is a necessity.¹¹

James Bryant Conant believed that there are five areas of knowledge, namely philosophy, sociology and anthropology, economics, political science and psychology, which can only be studied at the university level. If only an introduction to these areas can be accomplished because of available time, he felt such introduction to be of the utmost importance. Properly taught, such introductory courses would lay the basis for further self-education based on readings.¹² Conant pointed out that social studies teacher preparation programs must include work

⁹Roy A. Price, "Implications for Teacher Education," Developing Citizenship Through School Activities, Laura M. Shufelt, editor (Washington, D. C.: The National Council for the Social Studies, 1949), pp. 65-66.

¹⁰Edwin Fenton, The New Social Studies (New York: Holt, Rinehart and Winston, Inc., 1967), p. 107.

¹¹Ibid., p. 115.

¹²James Bryant Conant, The Education of American Teachers (New York: McGraw-Hill Book Company, Inc., 1963), p. 97.

in at least economics, geography and political science in addition to history, as a major in history is no guarantee of adequate preparation.¹³

As has been noted, if social studies teachers are to help students acquire an understanding of their political environment and that of other political systems, and to assist them in developing an awareness of their political roles, then, knowledge of political science would be of considerable assistance to these teachers. By introducing material from political science into most phases of social studies courses, teachers can assist students to interpret their society and to relate their knowledge of current political problems so that they become more effective citizens. Therefore, it would be of substantial benefit to secondary social studies teachers to have specific training in political science at the university level.

II. STATEMENT OF THE PROBLEM

Whether or not social studies teachers have such specific training in political science is a proper question for investigation. Furthermore, the impact of such training, or its absence, upon the teacher's own attitudes toward politics is a relevant matter for study. The research presented here was undertaken as an attempt to provide answers to the following questions:

¹³Ibid., p. 171.

1. What formal academic preparation in the discipline of political science do urban secondary social studies teachers in Alberta possess?

2. Are urban secondary social studies teachers in Alberta cynical about, and alienated from, politics?

3. Do urban secondary social studies teachers in Alberta have well developed feelings of political efficacy and citizen duty?

4. What is the effect of formal academic training in political science, or its absence, upon Alberta urban secondary social studies teachers' own feelings of political cynicism, political alienation, political efficacy and citizen duty about political processes? (for definition of these terms, see p. 13)

A question may arise as to whether any relationship between formal academic preparation in political science and feelings of political cynicism, political alienation, political efficacy and citizen duty might not be simply a spurious artifact of the effects of other background factors. In order to explore this question, it was also necessary to collect information on certain relevant background factors of a selected group of urban secondary social studies teachers in Alberta. Such information was collected on the following background factors: (1) sex, (2) marital status, (3) level of school in which they are teaching, (4) school system in which they are teaching, (5) country of origin, (6) Canadian regional origin, (7) political orientation, (8) age, (9) years of teaching experience, (10) voting behavior in the last federal, provincial and municipal elections, and (11) feelings of personal

cynicism of these teachers. Precisely, the subsidiary problem of the study was to investigate this question.

III. NEED FOR THE STUDY

Prior to this study, studies concerned specifically with the scope of university training of urban secondary social studies teachers in Alberta in political science were non-existent.

There is no information readily available analyzing the feelings of political cynicism, political alienation, political efficacy and citizen duty of teachers of social studies, as distinguished from other teachers, toward political processes.

The National Commission on Teacher Education and Professional Standards (NCTEPS), established by the National Education Association of the United States, suggested a need for the collection of descriptive data about the profession of teaching.¹⁴ The Commission also recommended that research related directly to the education of teachers should be emphasized. Much additional information is needed to assist those who make decisions about selection, programs of preparation, and standards and procedures relating to the competent and ethical performance of teachers.¹⁵

¹⁴ National Commission on Teacher Education and Professional Standards, A Position Paper on Teacher Education and Professional Standards (Washington, D. C.: National Education Association of the United States, 1963), p. 30.

¹⁵ Ibid.

Robert E. Havighurst, at a conference held at Syracuse University in October, 1963, stated that there was value and need for systematic studies of the kinds of university training that social studies teachers have.¹⁶ Further, he specified that there was merit in and demand for research that will explore their attitudes toward processes of local and state politics, and functions of government.¹⁷ He concluded that it was imperative that studies of characteristics of teachers in service be carried out in order to know much more than is now known about the people who are teaching social studies courses.¹⁸ In this respect, Harmon Zeigler raised two questions:

Is it possible for teachers who are cynical and alienated about the political process to convey to their students how necessary it is to participate in the political process? If a teacher believes that participation in the process is futile, can he conceal his sense of futility and frustration from students and successfully teach them how to become politically responsible citizens?¹⁹

David Easton urged that the task of research ought to be to attempt to discover answers to such problems as:

To what extent does the transmission of different types of orientations relate significantly with the socioeconomic characteristics,

¹⁶Robert E. Havighurst, "Needed Research on Cultural Backgrounds, Attitudes, Knowledge and Training of Social Studies Teachers," Needed Research in the Teaching of the Social Studies, Research Bulletin no. 1, National Council for the Social Studies, (Washington, D. C.: National Council for the Social Studies, 1963), p. 69.

¹⁷Ibid.

¹⁸Ibid., p. 77.

¹⁹Harmon Zeigler, The Political Life of American Teachers (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967), pp. 54-55.

political views, ethnicity, religion, and the life, of the teaching staff?²⁰

Easton felt that answers to such questions would provide knowledge about the political consequences of education and would permit educationists to acquire some information about the success of education for achieving its goals in the area that is loosely called training for citizenship.²¹ However, before answers to those questions could be attempted, it would be advantageous to know the political feelings of secondary social studies teachers about political processes.

In short, the meagerness of factual knowledge about the amount of university training in political science and subsequent political attitudes of urban secondary social studies teachers in Alberta indicates a need for research such as this. This study attempts to meet this need partially by offering objective and concrete evidences of the academic training in political science of a selected group of teachers and of their general attitudes about politics.

IV. DELIMITATION OF THE STUDY

The preparation of secondary social studies teachers is both formal and informal and the product of many variables. Their academic qualification as well as their age, sex, and other job experiences will have an influence upon their subject specialization and knowledge in political science. The analysis of the preparation in political science

²⁰Easton, op. cit., p. 315.

²¹Ibid., p. 316.

of these teachers is limited to their formal education in political science at college and university levels. Informal preparation is immeasurable.

This study will refer to the formal academic training in political science and political attitudes of a sample of secondary social studies teachers in Calgary Public and Separate School Systems and Edmonton Separate School System who completed and returned a questionnaire and a battery of political attitude tests to the researcher. A possible bias sample may have resulted as precise knowledge is lacking about whether respondents are homogeneous or differ appreciably in their academic training in political science and their political attitudes from non-respondents. This sample is not a statistical random cross section of the total sample or of the universe of urban and rural secondary social studies teachers in Alberta. This study must be regarded as exploratory in character. The non-representative nature of this sample is a limitation of the study.

"Political attitudes are cognitions about and positive or negative feelings toward political objects."²² This study is concerned with four selected general political attitudes--political cynicism, political alienation, sense of political efficacy and sense of citizen duty--elicited from a selected group of urban secondary social studies teachers. Further, there is no attempt to evaluate the cognitive component of these four political attitudes, only the affective component.

²²Lester W. Milbrath, Political Participation (Chicago: Rand McNally and Company, 1965), p. 50.

The investigator assumes that all Albertan secondary social studies teachers have some minimal knowledge about politics which they may have acquired from the mass media, from readings of professional magazines and textbooks, from academic courses in other social science disciplines, or through some forms of political involvement. This assumption is a limitation of the study.

V. ASSUMPTIONS

Besides the assumption in the delimitation of the study, the following were also postulated in this investigation:

1. The language of the questionnaire and the battery of political attitude tests is non-technical thus subject to a variety of individual interpretations.
2. Responses to the questionnaire and to the battery of political attitude tests, upon which the major portion of this work is based, represented the respondents unreserved, honest and best judgement.
3. The questionnaire and the battery of political attitude tests, the instruments of the investigation, were adequate for the satisfaction of the objective of the study.

VI. DEFINITION OF TERMS

For the purpose of this study, key terms used have been defined in the following manner:

Social studies refers to courses of study which

. . . include all those scholarly materials which have to do with human conduct, with the study of man in groups, with the consideration of the interrelationships of human beings, which have been selected and organized for purposes of instruction of youth in secondary schools.²³

Secondary social studies teachers are those teachers who teach regularly one or more courses of social studies 7, 8, 9, 10, 20, 30 and 33.

Politics is that set of social activities involved in the authoritative determination of the rules of behavior within a society, the proper application of those rules over the society as a whole, and the adjudication procedures for the settlement of disputes concerning them.

Political science is an intellectual discipline primarily concerned with the question of how man governs himself. It covers the field of organized control of human society by means of government and the principle of, and the conduct of, government.

Formal academic preparation in political science. A social studies teacher who has taken one or more courses in political science at university or college level will be deemed to have "formal academic training in political science." A social studies teacher who has no course in political science at university or college level will be categorized as having no formal training in political science.

²³ Province of Alberta, Department of Education, Senior High School Curriculum Guide for Social Studies 10, 20, 30 and 33 (Interim) (Edmonton: Department of Education, 1967), p. 6.

Cynicism²⁴ is the viewpoint of a person who, following a suggestion from Webster's New Collegiate Dictionary, "believes that human conduct is motivated wholly by self-interest, and who expects nothing but the worst of human conduct and motives."

Political cynicism is an attitude characterized by feelings of disrepute directed toward politics and politicians.

To illustrate, a political cynic would overly emphasize negative characteristics of politicians. He will tend to see politicians as either grasping, corrupt, evil, untrustworthy, self-seeking, pretentiously outgoing, lacking in principles, or, as "manipulators," "political bosses" or "political hacks." He will be inclined to regard the operation of the government and the value system "legitimizing" it as either frauds, evildoers or a betrayal of the public trust.

Political alienation is an attitude made up of a perceived lack of power, disenchantment about, and estrangement from political processes.

Sense of political efficacy is a positive psychological disposition toward politics, a feeling of effectiveness and capacity in the political sphere.

Sense of citizen duty is a feeling that oneself and others have an obligation as citizens in a democratic society to participate in the political process, regardless of whether or not individual actions prove effective.

²⁴G. F. Woods, Contemporary Cynicism (The John Coffin Memorial Lecture, 1963; London: The Athlone Press, 1964), pp. 8-12.

VII. HYPOTHESES

The main hypotheses tested in this study were:

1. There are no significant differences among the mean scores attained by the groups of those secondary social studies teachers who have formal academic preparation in political science and those who have no formal training in political science on

- A. the Political Cynicism Scale
- B. the Political Alienation Scale
- C. the Sense of Political Efficacy Scale
- D. the Sense of Citizen Duty Scale.

2. Although group differences in regard to relevant background factors are taken into account, there are no significant differences among the group mean scores obtained by those secondary social studies teachers who have formal academic preparation in political science and those who do not on (1) the Political Cynicism Scale, (2) the Political Alienation Scale, (3) the Sense of Political Efficacy Scale, and (4) the Sense of Citizen Duty Scale.

3. No significant contribution to prediction of scores on (1) the Political Cynicism Scale, (2) the Political Alienation Scale, (3) the Sense of Political Efficacy Scale, and (4) the Sense of Citizen Duty Scale is made by knowing whether or not social studies teachers have formal academic preparation in political science or no preparation and by knowing relevant background factors.

4. Correlations between scores obtained by secondary social studies teachers on the Political Cynicism Scale, the Political

Alienation Scale, the Sense of Political Efficacy Scale, the Sense of Citizen Duty Scale, and the Practical Policy Test are not significantly different from zero.

VIII. SUMMARY

This study attempts (1) to investigate the range of formal academic preparation of a limited group of secondary social studies teachers in political science; (2) to present secondary social studies teachers' attitudes with regard to feeling of political cynicism, political alienation, political efficacy and citizen duty as revealed through a battery of political attitude tests; and (3) to appraise the effect of formal academic training in political science, or its absence, upon four general political attitudes found among secondary social studies teachers. A statistical, rather than an experimental, method is used to control the effects of relevant background factors to ensure that the relation observed may be ascribed, within limits of error, to formal academic training in political science and not to the influence of those factors.

CHAPTER II

RELATED LITERATURE

The literature related to the topic of this thesis can be divided into two broad categories. The first category, discussed in Section I and II below, considers studies dealing with the academic preparation of social studies teachers in political science. Sections IV-V involve an examination of studies having particular relevance to political cynicism, political alienation, sense of political efficacy and sense of citizen duty.

I. LITERATURE ON TEACHER ACADEMIC PREPARATION

There are many factors which may contribute to the existence of a poor learning situation for the teaching of social studies. Among these factors, the teacher's academic preparation must certainly loom very large. At least, one may infer this from the harvest of studies to be discussed in the review of the literature relevant to this topic. The content of pre-service training in the social sciences is a major concern of these writings. Some of these studies reflect the desirability of broadening and deepening this training in the social sciences, but several studies have dealt specifically with the need for greater pre-service training in political science per se. We will first consider the former group of writings and then turn attention to the more specific category.

General

In a report on teacher education and certification published in 1959, the National Council for the Social Studies listed some of the competencies desirable in social studies teachers. In reference to content competency, the report stated:

It is essential that the social studies teachers be competent in depth in the content of one of the disciplines included within the social sciences as well as competent in breadth in the other social sciences.¹

This competency in content should include an understanding of social, economic, political and cultural developments in various regions of the world. In addition, the report strongly urged that the pre-service preparation of social studies teachers should be characterized by a major concentration of at least twenty-five semester hours in either history or one of the other social sciences. Also included in these teachers' pre-service training should be approximately twenty-four hours in at least three other social sciences.²

A more recent statement, prepared for the National Council for the Social Studies, expressed corresponding views. It declared that social studies teachers must have some understanding of all of the social sciences, otherwise the effectiveness of social studies instruction for the education of young citizens will be impaired.³ This general

¹"Report of the NCSS Committee on Teacher Education and Certification," Social Education, Vol. 23 (May, 1959), p. 228.

²Ibid., p. 229.

³"The Role of the Social Studies," Social Education, Vol. 26, (October, 1962), p. 316.

agreement on the desirability of broadening the course of training in the social science disciplines for prospective social studies teachers is further supported in recent writings of educators and specialists in the field of teacher-training for social studies teachers.⁴

In a 1962 report, a committee of the Twenty-nine College Cooperative Plan recommended that eventual social studies teachers should have three one-year courses divided between two social sciences other than history--for example, anthropology, economics, political science, sociology and human geography.⁵ However, one member of the committee, Professor J. Roland Pennock, recorded a dissent. He personally recommended that social science requirements should include at least one half-year course in political science. This course should be designed "to give some sophistication in the theory and practice of politics, and

⁴See, for example, Jack Allen, "The Modern Social-Studies Teacher," The National Education Association Journal, Vol. 51, (November, 1952), p. 509; William C. Bagley, and Thomas Alexander, The Teachers of the Social Studies (Report of the Commission on the Social Studies, Part XIV; New York: Charles Scribner's Sons, 1937), pp. 55-57; California State Department of Education, Report of the State Central Commission on Social Studies to the California Curriculum Commission (Sacramento, 1961), p. 4; Morris R. Lewenstein, Teaching Social Studies in Junior and Senior High Schools (Chicago: Rand McNally and Company, 1963), pp. 524-525; Jonathan C. McLendon, Social Studies in Secondary Education (New York: The MacMillan Company, 1965), pp. 514-515; R. A. Moyers, "Preparation for Teaching the Social Studies," The Social Studies, Vol. 29, (May, 1938), pp. 210-212; and James L. Quillen, and Lavone A. Hanna, Education for Social Competences: The Social Studies in Secondary Schools (revised edition; Chicago: Scott, Foresman and Company, 1961), pp. 26-28.

⁵Twenty-nine College Cooperative Plan, The Academic Preparation of Secondary School Teachers (The Reports of four Committees. Cambridge: Harvard University Press, 1962), pp. 18-24.

to combat the formalistic and purely descriptive mode of instruction that so often prevail in the high school courses in this subject."⁶

Specific

Turning our discussion toward specific preparation in political science, it is noted that little attention had been given previously to the adequacy of secondary social studies teachers' academic preparation in that discipline. In 1951, the Committee for the Advancement of Teaching of the American Political Science Association stated: "The relationship of college political science teaching to high school social studies teaching is one of the weakest parts of political science's record to date."⁷ The Committee further concluded, "The improved preparation of social studies teachers should be a major concern of the political science profession."⁸ Yet, Harlan Hahn, writing in 1965, concluded that during the intervening period very few researchers had attempted to evaluate the academic preparation of secondary social studies teachers in political science.⁹

In an admittedly old study, Howard Wilson attempted to assay the training of a group of social studies teachers in New York State with

⁶Ibid., p. 19.

⁷The Committee for the Advancement of Teaching, American Political Science Association, Goals for Political Science (New York: William Sloane Associates, Inc., 1951), p. xix.

⁸Ibid., p. xx.

⁹Harlan Hahn, "Teacher Preparation in Political Science," Social Education, Vol. 29, (February, 1965), p. 86.

the use of questionnaire materials. Usable replies on academic preparation were received from 381 teachers. A third or more of these teachers reported no college course work in political science. Results also showed that the most frequent field of graduate concentration for those who held the Master's degree was history. Significantly, 13 per cent of the Master's degree reported were in fields outside the social sciences or education. Somewhat disconcerting to Wilson was the discovery that 27 per cent of those teaching social studies majored in college in areas outside the social sciences. He recommended that there was desirability for more extensive training in political science and other newer social sciences for future social studies teachers.¹⁰

More recently, Harold Sare and Wallace Browning studied the records of 1,007 social studies teachers who taught grades 9-12 in public schools of Kansas during the 1956-57 academic year. Data were compiled from Principal's Organization Reports and from official college transcripts of course and grade. The latter provided data on the academic preparation of social studies teachers. One of several difficulties encountered was that of determining the academic major of teachers since many transcripts officially recorded neither a major nor a minor. In these cases, the area in which teachers had the most credit hours recorded was considered the major. Minors were not considered in this study. Sare and Browning found that 452 of the social studies teachers, or 44.8 per cent, had a major in the social sciences. The second largest

¹⁰Howard E. Wilson, Education for Citizenship (The Regents' Inquiry; New York: The McGraw-Hill Book Company, Inc., 1938), pp. 185-191, 229.

group of social studies teachers--202 (or 20 per cent)--were physical education majors. However, they discovered that, regardless of academic major, most of the teachers had taken several college courses in the social sciences, for example, 85 per cent completed courses on United States government.¹¹

Frederick Wellman examined the academic preparation of social studies teachers in Illinois, using mail questionnaires. These were completed by almost one-seventh of the teachers to whom they were sent. The survey revealed that over one-fourth of the respondents majored in fields other than the social sciences, most frequently in physical education. Furthermore, 11.1 per cent of these Illinois social studies teachers reported no credit whatsoever in political science.¹²

In a Minnesota study, Paul Torrance and Janet Ross similarly reported that 31 per cent of social studies teachers had received no college credit in political science. Only 25 per cent of their sample of teachers had more than twelve quarter credits in the field of political science. In addition, Torrance and Ross discovered that only 3 per cent of the social studies teachers at the elementary level had taken

¹¹Harold V. Sare, and Wallace Browning, "Background and Academic Preparation of the Social Science Teachers in the High Schools of Kansas 1956-1957," The Emporia State Research Studies, Vol. 7, (December, 1958), p. 7, 25, 50. Nevertheless, it is interesting to note that, at most public universities in the United States, a basic course in United States government is a degree requirement.

¹²Vernon C. Pohlmann, and Frederick L. Wellman, "Are High School Social Studies Teachers Adequately Prepared?" Social Education, Vol. 24, (November, 1960), p. 310.

college work in political science.¹³

By contrast, the Michigan Council for the Social Studies found that 80.4 per cent of a sample of Michigan high school social studies teachers had completed college courses in political science. However, the Council also discovered that 56.4 per cent of this group had less than seven semester hours in the subject matter.¹⁴

Another study, conducted in Maine, reported that almost half of that state's social studies teachers had three or fewer semester hours in political science. This study concluded that the academic preparation of these teachers in political science was in many cases nonexistent, and in many other cases quite inadequate.¹⁵

Sanford Gordon and Dennis Shea conducted an investigation to obtain a political profile of secondary social studies teachers in rural New York State. One hundred and nineteen questionnaires were sent out and eighty-seven were returned; a return rate of 73.5 per cent. Inquiry into the college background of these teachers showed that 59 per cent of the respondents had more course credit in political science than six semester hours required for certification. Gordon and Shea concluded that there was a high positive multiple correlation between the political attitudes of these teachers in the classroom and their college preparation

¹³Paul E. Torrance, and Janet Ross, Improving Social Studies Education in Minnesota (Minneapolis: 1961), p. 28, 35.

¹⁴Michigan Council for the Social Studies, The Status of the Preparation of Social Studies Teachers in Michigan Accredited High Schools (Ann Arbor: 1963), p. 9.

¹⁵Hahn, op. cit., p. 87.

background, their experience in politics, and their personal attitudes about political processes.¹⁶

A University of Alberta study on the training of teachers for social studies instruction recommended that, in the future, there be more academic courses in social science disciplines for social studies teachers in Canada. In an examination of requirements of eighteen selected Canadian and American universities, Ruth Randall discovered that five out of ten Canadian universities and all eight American universities required courses in history for their prospective social studies teachers. American universities gave a more positive support to fields of the social studies other than history--for example, political science was required by seven out of eight of these institutions. Political science was not usually a required discipline in the pre-training of social studies teachers in Canada. Only one university listed this discipline as a required course for social studies teachers. However, most of them provided opportunities for students to take political science courses. Of the 238 Alberta social studies teachers questioned by Randall, 46.6 per cent (111 teachers) had one or more courses in political science. She made no comment on either the type or the quality of the political science courses taken.¹⁷

¹⁶ Sanford D. Gordon, and Dennis M. Shea, "A Political Profile of the Rural Social Studies Teacher," Social Education, Vol. 28, (October, 1964), pp. 333-334.

¹⁷ Esther Ruth Randall, "The Training of Teachers for Social Studies Instruction" (unpublished Master's thesis, The University of Alberta, Edmonton, 1963), pp. 170, 158-168.

In a recent pilot study, Brian Jones examined the academic qualifications of a selected group of Alberta senior high school social studies teachers. Of 115 questionnaires sent to all high school social studies teachers in the Edmonton Public School System, the Lethbridge School System, the Lacombe School Division, the High Prairie School Division and the Acadia School Division, eighty-eight were returned; a percentage return of 76.5. Jones reported that only fifteen of the eighty-eight respondents, or 17 per cent, had taken course work in political science. Of these fifteen, seven had taken only one course in political science and three reported having taken two courses. Since the respondents represented only 10.4 per cent of the total population of high school social studies teachers in Alberta and were obviously not a randomly selected sample from that population, it is impossible to generalize Jones' findings to that entire population.¹⁸

An indication of poor academic preparation of social studies teachers in political science is suggested in their failure to meet state minimum requirements for certification. In his Illinois study, Wellman showed that 41 per cent of these teachers lack the required eight semester hours in political science. He also reported that even fewer teachers of social studies in Illinois met the minimum teaching knowledge requirements for political science courses which they were actually teaching: 16.9 per cent for non-physical education majors and 41.2 per cent for

¹⁸Brian M. Jones, "Economics in the Social Studies" (unpublished Master's thesis, The University of Alberta, Edmonton, 1966), p. 51.

physical education majors.¹⁹ Similarly, Sare and Browning discovered in their study that 42 per cent of social studies teachers in Kansas lacked the minimum state requirement for the political science or government courses they were teaching.²⁰

Another indicator of the general lack of academic training of social studies teachers in political science is the number of them who have obtained an undergraduate major in that discipline. In their Minnesota study, Torrance and Ross found that only 4 per cent of the social studies teachers had an undergraduate political science major.²¹ In another study, a sample of Kentucky social studies teachers failed to produce any political science majors.²² Finally, an Ohio study turned up only seven social studies teachers who were certified as political science majors in 1962, although 813 held certificates in history-government.²³

Most of the above studies clearly suggest that social studies teachers are not adequately prepared academically in political science. It could be inferred from this that the political science preparation of secondary social studies teachers has to be viewed in a critical light.

¹⁹Pohlmann, and Wellman, op. cit., p. 311.

²⁰Sare, and Browning, op. cit., p. 43.

²¹Torrance, and Ross, op. cit., p. 23.

²²Hahn, op. cit., p. 87.

²³Ibid.

Certainly the empirical studies cited above support this inference. Furthermore, the number of studies with a particular focus upon the academic preparation of Canadian secondary social studies teachers in political science is distressingly small. Given the results of the studies just discussed, the majority of which were conducted in the United States, this should surely be considered an unsatisfactory condition. The findings of the reports cited in the early part of this category underscore the impact and desirability of pre-service training in the social sciences for secondary social studies teachers. Yet, in conclusion, the review of literature given above indicates that this important matter has been insufficiently researched empirically by Canadian educators.

II. LITERATURE ON SELECTED POLITICAL ATTITUDES

If indeed the ultimate goal of social studies instruction is to prepare good citizens, then it is well to recognize that desirable socio-civic behavior is the product of emotional as well as rational climates. Social studies teachers, whether deliberately or indirectly, suggest or emphasize certain political values and avoid the discussion of others in their classrooms. Moreover, their political attitudes will tend to color all their teaching in the social studies, since, as others have noted, individuals' behavior "tends to reflect the values, ideals, beliefs and

attitudes which [they] accept."²⁴ Perhaps one of the major problems involved in the social studies instruction has to do with the particular political viewpoints which social studies teachers bring into their classrooms. This consideration leads one directly to a review of that literature having to do with political attitudes and more specifically the political attitudes of teachers.

On the latter topic, only two studies could be found. Joseph Katz investigated the political beliefs of 103 social studies student-teachers at the University of Manitoba over a period of three years--1950-53. Over the three year period, he found a preponderance of "idealistic views of the body politics" and a tendency towards "a liberal attitude in the teaching of the social studies"²⁵ among the student-teachers involved in the study. One of Katz' conclusions was that student-teachers gave evidence of a healthy, "critical attitude towards government practices" and "towards peoples in and out of governments."²⁶ He felt that the presence of a critical attitude safeguarded these student-teachers from blind indoctrination and ensured that "the social studies will not be taught in an atmosphere of blind acceptance of the

²⁴"The Role of the Social Studies," Social Education, Vol. 26, (October, 1962), p. 315.

²⁵Joseph Katz, "The Political and Economic Beliefs of Student-Teachers in the Social Studies," The Social Studies, Vol. 44, (April, 1953), p. 144.

²⁶Ibid.

status quo."²⁷

In the United States, Harmon Zeigler conducted a far more comprehensive study of The Political Life of American Teachers.²⁸ A matter of some interest to Zeigler was the extent to which a selected group of teachers held politicians and politics in disrepute; that is, the extent to which these terms symbolize something negative rather than something positive. Zeigler's study was based upon interviews with 803 high school teachers living in Oregon. These interviews were conducted by professional interviewers from January to March 1965. He concluded that a relationship was prevalent between social status mobility and feelings of political cynicism and political alienation. Regardless of the length of teaching experience, Zeigler discovered that downwardly-mobile male teachers were more politically cynical and alienated than other male teachers and that upwardly-mobile female teachers were the most politically cynical and alienated of all the female teachers involved in the study. He argued that, for both male and female teachers, uncertainties of mobility were translated into cynicism and alienation.²⁹

²⁷ Ibid.

²⁸ Harmon Zeigler, The Political Life of American Teachers (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967).

²⁹ Ibid., pp. 6, 31-57.

Political Cynicism and Political Alienation

These feelings of political cynicism and political alienation have been the focal point of a number of other studies in both political science and sociology, although few of them dealt specifically with the political attitudes of teachers. Nevertheless, some resumé of the important literature on these topics is called for.

The more general notion of personal cynicism might be considered as a parent disposition for such specifically political attitudes. Here a noteworthy set of articles emanated from a study by Charles Neidt and Martin Fritz. During the development of a battery of questions tapping personal cynicism, Neidt and Fritz investigated the relationship between cynicism and certain student characteristics. Copies of the test were distributed at random intervals to 400 students enrolled in psychology courses at Iowa State College during the years 1944 and 1945. Along with the testing instrument, students were asked to complete a short questionnaire attached to the test concerning their sex, religious preference, marital status, political preference, educational class level and father's occupation. Three hundred and eighty-seven students completed both instruments. Neidt and Fritz concluded that there was a highly significant difference between male and female students in their feelings of personal cynicism. In all classifications, males were reported to be more cynical than females. Significant relationships were also reported between feelings of personal cynicism and age, religious preference, and marital status. In general, older students were found to be more cynical

than younger students. Students expressing no religious preference obtained higher scores on the test of cynicism than Catholic subjects, with Protestants occupying an intermediate position between these two groups. Married students were distinctly more cynical than others, and engaged students were the least cynical of all marital status groups. Neidt and Fritz also found that students classified by (1) political preferences (Democrat, Republican, or no preference), (2) educational levels (Freshman, Sophomore, Junior and Senior), and (3) father's occupation (farmer versus non-farmer) in each case failed to reveal any significant difference in terms of their degree of cynicism.³⁰

In a paper based on the above investigation, Fritz suggested that cynicism and idealism tended to co-exist in the same individuals. He pointed out that every one of the 387 subjects studied made at least some strongly cynical responses even though the tendency to give a greater number of highly idealistic answers was more pronounced.³¹

Several more studies have investigated the relationship between feelings of cynicism about, and alienation from, politics and participation in political processes. In 1959, Robert Agger, Marshall Goldstein

³⁰Charles O. Neidt, and Martin F. Fritz, "Relation of Cynicism to Certain Student Characteristics," Educational and Psychological Measurement, Vol. 10, (Winter, 1950), pp. 712-717; and Charles O. Neidt, "Relation of Cynicism to Certain Other Variables," Proceedings of the Iowa Academy of Science, Vol. 53, (1946), pp. 277-283.

³¹Martin F. Fritz, "Co-Variation of Cynicism and Idealism," Proceedings of the Iowa Academy of Science, Vol. 54, (1947), pp. 231-234.

and Stanley Pearl explored some of the causes and consequences of political cynicism in the body politic of a small Oregon metropolis. Agger and his colleagues encountered a correlation between personal cynicism and political cynicism. After they had analyzed the interrelationship of personal to political cynicism within each educational classification, they concluded that "in every case as personal cynicism increases, political cynicism increases."³² They suggested that the relationship of personal to political cynicism perhaps could be explained partly by differences in educational level, nonetheless, a major portion of the connection was independent of this variable.³³ Agger and his colleagues also found that political cynicism was related to at least one indicator of the level of political participation undertaken by the respondents. They discovered that the politically trusting reported generally a higher level of political discussion than did the politically cynical.³⁴

The above study led Edgar Litt to further investigate the link between cynicism about politics and participation in political processes.³⁵

³²Robert E. Agger, Marshall N. Goldstein, and Stanley A. Pearl, "Political Cynicism: Measurement and Meaning," The Journal of Politics, Vol. 23, (August, 1961), p. 490.

³³Ibid., p. 490-491.

³⁴Ibid., pp. 492-495.

³⁵Personal correspondence from Professor Edgar Litt to this investigator.

A random sample of registered voters, selected from one, middle class political ward of Boston, was studied. The anticipated negative relationship between feelings of political cynicism and political participation was confirmed by the data amassed.³⁶

In a study of local politics in four communities located in two different regions of the United States, Robert Agger, Daniel Goldrich and Bert Swanson found no relationship between feelings of political cynicism and participation in politics. A political participation index revealed that, at all educational levels, the politically cynical were more apt to participate in local politics than were the politically trusting, although, among the highly educated, the difference was small. Their formulated hypothesis that decreasing participation in local community politics results from increased political cynicism on the part of the citizen was not supported in their data.³⁷

Edward McDill and Jeanne Ridley attempted to isolate certain socio-psychological factors which account for variation in voting behavior. Their analysis was restricted to data obtained from 268 suburban residents in Tennessee who were eligible to vote in a local referendum election. They discovered that "politically alienated" respondents were less likely to have voted on the referendum. From this

³⁶Edgar Litt, "Political Cynicism and Political Futility," The Journal of Politics, Vol. 25, (May, 1963), pp. 314-315.

³⁷Robert E. Agger, Daniel Goldrich, and Bert E. Swanson, The Rulers and The Ruled (New York: Wiley and Sons, 1964), pp. 627-631.

finding, they concluded that political alienation was significantly related to voting behavior.³⁸ Their conclusion is supported in the findings of other investigators.³⁹ Each of these particular investigations ascertained that persons who felt alienated from politics were much less inclined to participate in political processes, or, conversely, that the non-alienated were generally the highest participators in politics.

Some studies disclosed that older persons tended to feel more cynical and alienated from politics than younger persons. In their Oregon study, Agger and his colleagues concluded that aging tended to produce more political cynics. Elderly persons tended also to display

³⁸Edward L. McDill, and Jeanne C. Ridley, "Status, Political Alienation, and Political Participation," The American Journal of Sociology, Vol. 68, (September, 1962), pp. 209-213.

³⁹For example, see Angus Campbell, "The Passive Citizen," Acta Sociologica, Vol. 26, (fasc. 1-2, 1962), pp. 13-15; Dwight G. Dean, "Alienation and Political Apathy," Social Forces, Vol. 38, (March, 1960), pp. 188-189; William Erbe, "Social Involvement and Political Activity: A Replication and Elaboration," American Sociological Review, Vol. 29, (April, 1964), pp. 206-207; Murray B. Levin, The Alienated Voter: Politics in Boston (New York: Holt, Rinehart and Winston, 1962), pp. 66-69; Wayne E. Thompson, and John E. Horton, "Political Alienation as a Force in Political Action," Social Forces, Vol. 38, (March, 1960), pp. 192-195; John E. Horton, and Wayne E. Thompson, "Powerlessness and Political Negativism: A Study of Defeated Local Referendums," The American Journal of Sociology, Vol. 67, (March, 1962), pp. 490-493; Morris Rosenberg, "Misanthropy and Political Ideology," American Sociological Review, Vol. 21, (December, 1956), pp. 694-695; Morris Rosenberg, "Some Determinants of Political Apathy," Public Opinion Quarterly, Vol. 18, (Winter, 1954-1955), pp. 350-351; and Allen Schick, "Massachusetts Politics: Political Reform and 'Alienation'," (Medford, Mass.: Tufts University, 1963), pp. 29-30. (Mimeographed.)

feelings of personal cynicism more often than younger people. Although the correlation was not perfect, it remained even with education controlled.⁴⁰ This suggested that the correlation was not merely a by-product of the trend for younger adults to have obtained more formal education than their elders. However, Thompson and Horton learned that individuals who were young--roughly twenty-one to thirty years of age--were as apt to be politically alienated as those who were elderly. The least degree of political alienation occurred among the "mature adults."⁴¹

Some of these studies have also dealt with the matter of environmental influences on how and to what extent political cynicism and alienation are developed as personality traits. In their Oregon study, Agger and his colleagues discovered that persons of higher socio-economic status (SES), especially those with higher education, were least inclined to develop cynical attitudes towards politics. They concluded that a significant correlation existed between levels of income and development of feelings of political cynicism--the higher the income level, the lower the proportion of political cynics. The data also revealed that, within every income classification, the higher the level of education, the higher the proportion of politically trusting individuals.⁴²

⁴⁰ Agger, Goldstein, and Pearl, op. cit., pp. 488-489.

⁴¹ Thompson, and Horton, op. cit., p. 192.

⁴² Agger, Goldstein, and Pearl, op. cit., pp. 487-488.

The Thompson and Horton data, gathered in similar studies of two upstate New York communities, in the same manner showed that politically alienated persons were largely recruited from people of lower socio-economic status, whether indexed by occupation or educational attainment. In both of their community studies, they concluded that political alienation and low socio-economic position correlated significantly with each other.⁴³

Two other studies have disputed these conclusions. In an analysis conducted at the University of Michigan, Angus Campbell attempted to learn something about the personality traits of political involvement. He discovered no correlation between feelings of political cynicism and political alienation and either education or socio-economic status. He concluded that apparently the origins of political cynicism and alienation rely "on something other than simple socio-economic status" and education.⁴⁴ Similarly, in his Boston ward study, Litt noted that educational level was unrelated to the degree of political cynicism exhibited by voters.⁴⁵ The inconclusive findings of the above research suggest a need for further studies which strive to overcome deficiencies and limitations in relation to sample size, instrumentation,

⁴³Thompson, and Horton, op. cit., p. 193; and Horton, and Thompson, op. cit., pp. 491-493.

⁴⁴Campbell, op. cit., pp. 12-14.

⁴⁵Litt, op. cit., p. 319.

methods of analysis, and control of relevant variables which may have confounded the relationship between both socio-economic status and educational level and feelings of political cynicism and political alienation.

In the same study, Litt also appraised the effects of the political milieu upon feelings of political cynicism. His data showed that "exposure to Boston politics increased political cynicism."⁴⁶ Litt suggested that political cynicism may well be acquired as "a community norm, a part of the political acculturation process in the city's daily routine."⁴⁷ It is interesting to note that in Murray Levin's study of political cynicism, again conducted in Boston, one of the most significant findings was that feelings of cynicism about politics and politicians were strongest among those who have been residing the longest in that city.⁴⁸

This type of cultural influence need not be confined to small regions within a particular country. Gabriel Almond and Sidney Verba conducted an analytical study of the political cultures in five nations: the United States, Great Britain, Germany, Italy and Mexico. One major concern of this study dealt with feelings of political alienation. These authors found significant differences in the percentage of citizens in each of these five nations who gave evidence of feelings of political

⁴⁶Litt, op. cit., p. 316.

⁴⁷Ibid., p. 319.

⁴⁸Levin, op. cit., p. 57.

alienation. The relevant percentages were: United States, 7 per cent; Germany, 13 per cent; Great Britain, 14 per cent; Mexico, 35 per cent; and Italy, 38 per cent. Almond and Verba also found that the more highly alienated citizens knew less factual information about politics in their own political environment. This finding seems to indicate that political alienation has an important influence on learning materials relevant to politics.⁴⁹

Using a quasi-experimental procedure, Melvin Seeman and John Evans attempted to assess the significance of alienation in social learning. A sample of tuberculosis patients in Ohio were divided into two groups, one high on alienation and the other low on this characteristic. Patients in these two groups then were matched with regard to their socio-economic backgrounds, their health, and their hospital histories. The results of each of three measures of knowledge supported Seeman and Evans prediction that high alienation and poor learning were associated. Patients categorized as most alienated made significantly lower scores on an objective test of knowledge than their matched counterparts who were classified as least alienated.⁵⁰

⁴⁹Gabriel A. Almond, and Sidney Verba, Civic Culture (Boston: Little, Brown and Company, 1965), pp. 45-62.

⁵⁰Melvin Seeman, and John W. Evans, "Alienation and Learning in a Hospital Setting," American Sociological Review, Vol. 27, (December, 1962), pp. 777-781.

Political alienation and political cynicism often appear to be highly interrelated.⁵¹ If the former inhibits the learning of political information and social norms, the latter may also have the same effect. Although no studies were found that involved a direct test of this hypothesis, one study provides some insight upon it. Herbert McClosky and John Schaar used a large battery of personality and attitude scales to explore the psychological dimensions of the anomic personality. Data were collected from two extensive surveys: one, a cross-section of the Minnesota population (N = 1082), and the other, a cross-section of the United State population (N = 1484). These researchers found that an appreciable amount of anomy was widespread among the members of both samples. They made the argument that anomy is the product of a breakdown, or a malfunctioning, of the social learning processes of a society. They do not account for the causes of such an event. Yet, interestingly, they also found that scoring high on their measure of anomy was significantly related in a positive direction to one's score on measures of pessimism, anxiety, hostility, paranoid tendency, political alienation and political cynicism.⁵²

In conclusion, we might note that, in view of the importance of school in teaching socio-civic norms, the degree to which such attitudes

⁵¹Lester W. Milbrath, Political Participation (Chicago: Rand McNally and Company, 1965), p. 78.

⁵²Herbert McClosky, and John H. Schaar, "Psychological Dimensions of Anomy," American Sociological Review, Vol. 30, (February, 1965), pp. 24, 35-40.

as political cynicism and political alienation are allowed to permeate the classroom may well be a significant inhibition of satisfactory learning of these socio-civic norms.

Political Efficacy and Citizen Duty

Political scientists have used several means to gauge positive attitudes which citizens might hold towards politics. In recent years, instruments have been developed to measure two such political attitudes: sense of political efficacy and sense of citizen duty. The literature discussed in the following pages deals with studies based on these two political attitudes.

Persons who think or believe that individual political activities are worthwhile, and that they are capable of accomplishing things through political processes can be said to have a positive attitude towards politics called political efficacy. In order to explore the origins and the development of political efficacy, David Easton and Jack Dennis administered a questionnaire to a group of 12,052 public school children. This group was selected to purposively include only white children, seven to thirteen years of age, from both middle class and working class families, and taken from eight large metropolitan areas distributed equally in each of the four major regions of the United States. Their research revealed that an unexpectedly wide range of attitudes about aspects of political life are acquired by children in a gradual, developmental fashion. Easton and Dennis found that, by grade three, the children had already begun to form a sense of political efficacy and

that, by grade eight, 83 per cent of them felt moderately or highly politically effective. The data further suggested a fairly constant correlation between political efficacy and I.Q. over the grades, particularly from grade five onwards. Easton and Dennis concluded, "The child who has greater intellectual abilities--as measured by I.Q. tests--is more likely to acquire the norm early and maintain thereafter a positive feeling towards it."⁵³ Socio-economic status of students also displayed a similar but weaker relation to the sense of political efficacy. "The child higher on the social ladder is at every grade level likely to be a step or two higher in relative sense of political efficacy."⁵⁴ Easton and Dennis failed to observe any marked and consistent difference in feelings of political efficacy between boys and girls over the grades. The data did show a slight advantage for boys in grades three to seven, but this was reversed in grade eight.⁵⁵

Angus Campbell, Gerald Gurin and Warren Miller attempted to measure some of the components of political efficacy in a nation-wide survey of voting behavior in the 1952 presidential election in the United States. Their hypothesis that political participation is positively related to sense of political efficacy was upheld by the data collected.

⁵³David Easton, and Jack Dennis, "The Child's Acquisition of Regime Norms: Political Efficacy," The American Political Science Review, Vol. 61, (March, 1967), p. 34.

⁵⁴Ibid., p. 35.

⁵⁵Ibid., pp. 25-38.

These data clearly indicated that the higher an individual's sense of political efficacy, the more likely his participation in the campaign and the election. As they had expected, Campbell and his associates found education to be highly linked to scores on the political efficacy scale; generally, college educated persons ranked higher on the political efficacy scale than those with only a grade school education. Two other socio-economic status variables, income and occupation, also were found to be highly interrelated with political efficacy. Furthermore, Campbell and his associates discovered that men were somewhat more inclined than women to develop feelings of political efficacy. The data also showed that Negroes and non-city dwellers were less likely to feel politically effective than Whites and city dwellers. Persons residing in the American South ranked significantly lower in political efficacy than persons living in other regions of the United States. Finally, no consistent relationship between age and sense of political efficacy was found in this study.⁵⁶

In their five-nation study, Almond and Verba found that whether or not persons felt politically competent depended a great deal upon the type of political culture in which they lived and upon who they were within their own country. In this study, wide cross national variations were found in the percentage of respondents who expressed feelings of efficacy towards the national level of politics. These

⁵⁶ Angus Campbell, Gerald Gurin, and Warren E. Miller, The Voter Decides (New York: Row, Peterson and Company, 1954), pp. 187-194.

variations ranged from a high of slightly less than 80 per cent in Great Britain to a low of less than 33 per cent in Italy.⁵⁷ Educational, occupational and sex differences showed that persons of higher status, better educational level and who were males were more inclined to have developed feelings of political efficacy.⁵⁸

In the studies cited previously, Robert Agger, Marshall Goldstein and Stanley Pearl,⁵⁹ and Edgar Litt⁶⁰ discovered that formal educational levels and feelings of personal trust were positively interrelated to a sense of political efficacy. However, in his Boston study, Litt concluded that the interrelationship between feelings of personal trust and political efficacy did not hold in a city dominated by a political machine. Nonetheless, the expected relationship between personal trust and political efficacy did emerge in data collected in suburban areas of the city.⁶¹

As noted above, a second positive attitude towards politics is what has been termed "sense of citizen duty." Alternative labels for

⁵⁷ Almond, and Verba, op. cit., pp. 140-145.

⁵⁸ Ibid., pp. 162-167.

⁵⁹ Agger, Goldstein, and Pearl, op. cit., pp. 493-495.

⁶⁰ Litt. op. cit., p. 315.

⁶¹ Ibid., pp. 316-317.

this general political attitude are "sense of political responsibility" or "sense of civic obligation" to participate in politics.

Social-position factors within a culture appear to have an impact on the development of a sense of civic duty. In their 1952 presidential election survey, Campbell and his associates attempted to tap the more important elements of this political norm. Data gave considerable support to their prediction that levels of political participation correlate positively with a sense of citizen duty. Feelings of citizen duty were found to be highly related in a positive manner to educational level and to economic status when either income or occupation variable was used as an SES index. In this same study, white individuals and city dwellers were found to be more inclined to develop a civic-duty attitude than Negroes and "open country" dwellers. Compared to the other three major regions of the United States, inhabitants of the American South gave evidence that relatively few of them felt a duty to participate in political processes. To all appearances, sex and age bore insignificant relation to feelings of civic obligation tapped from voters, although some sex differences were found among those voters who displayed a weak sense of citizen duty--indicating that an interaction effect might have been present.⁶²

⁶²Campbell, Gurin, and Miller, op. cit., pp. 194-199.

"Feelings of citizen duty are instilled by the political socialization process and have their roots both in society and in personality."⁶³ Some data from Almond and Verba five-nation study clearly suggest that a political-responsibility attitude is more likely to be inculcated in some political cultures than others. Almond and Verba found that 40 per cent of American respondents felt they had a duty to participate in political processes. Percentages in the other four countries were: Great Britain, 18; Germany, 15; Italy, 2; and Mexico, 1. Despite statistical controls for education and occupation applied by the two investigators, differences persisted in the extent of citizen-duty attitude expressed by citizens in the latter four countries. As a result, Almond and Verba concluded that differences in feelings of civic duty discovered between countries were not simply a spurious artifact of effects of these social-position factors. However, although they found insignificant age and sex differences in levels of expressed adherence to a civic-obligation attitude in the United States, Almond and Verba discovered a pronounced difference between males and females (males higher) in likelihood of developing an attitude of political responsibility in the other four democratic cultures included in their study.⁶⁴

⁶³Milbrath, op. cit., p. 63.

⁶⁴Almond, and Verba, op. cit., pp. 117-135.

III. SUMMARY

This review of literature may be summarized in the following manner.

1. Generally, the studies included in the first section agree that future secondary social studies teachers should have a broad academic preparation in various social science disciplines which comprise the field of social studies. Some college work in political science was also recommended personally by a member of a committee as a fundamental part of the advised broad academic pre-training of social studies teachers.

2. Studies in the area of academic training of social studies teachers in political science argue that the pre-training of these teachers in that discipline is inadequate. Teachers for government, or civic, instruction frequently lack the required semester hours in political science for certification. Even social studies teachers with undergraduate majors within the realm of the political science discipline have been remarkably rare.

3. Studies about political attitudes show that sources of these attitudes included early and late socialization experiences, as well as post-socialization experiences as an adult. Both political and nonpolitical experiences, whether intended or unintended to have an effect on political attitudes by others, are included. Clearly, basic political attitudes can be affected by numerous experiences which can come at a variety of times. Political attitudes of cynicism, alienation, efficacy

and citizen duty may be so formed by exposure to political attitudes of others whether the attitude formation is intentional or unintentional.

4. The consensus among numerous studies is that persons who felt politically effective and responsible appear to participate in political processes to a greater range than those who felt cynical and alienated from politics.

5. Most of the studies that examined causes and consequences of the four political attitudes mentioned in the above review concluded that persons of higher socio-economic status, especially of higher educational level, tended to score low on political cynicism and political alienation scales and high on political efficacy and civic obligation scales.

6. Several studies have reported significant positive correlations between sex, age, race, culture and regional areas, and feelings of political cynicism, political alienation, political efficacy and citizen duty. However, correlations between sex and age variables and citizen-duty attitude diminished somewhat in the United States, although they were found in other cultures.

7. Various studies, conducted in the United States, showed that white persons and city dwellers were more apt to develop feelings of political efficacy and citizen duty rather than feelings of political cynicism and political alienation. Southerners appeared to be more cynical about, and alienated from, political processes than inhabitants of the other three major regions of the United States. The available evidence suggests that the environment in which a person is raised may

have some significant impact on the development of certain political attitudes.

8. Findings of some studies indicate that some socio-psychological personality traits, notably symptoms of distress, perhaps, are related to the political attitudes of cynicism and alienation. Researchers suggested that persons with relatively high level of political cynicism and political alienation may be afflicted by a complex and distressful socio-psychological outlook on life, and that persons with ample neurotic and psychotic problems may not be attracted to normal democratic political participation.

9. Generally speaking, studies in several nations demonstrate substantially that feelings of citizen duty related to many of the same demographic and social-position variables that feelings of political efficacy correlated with. Only with regard to sex and age variables did the prevailing similarity in part disappear.

CHAPTER III

INSTRUMENTS, PILOT STUDY AND PROCEDURES OF THE INVESTIGATION

This investigation was designed as a survey-type study of a quasi-experimental nature.¹ Two instruments were constructed to discover the impact of academic training in political science, or its absence, upon social studies teachers' own attitudes towards politics. The first was a questionnaire which allows the categorization of secondary social studies teachers in terms of academic training in political science. The questionnaire yields also information pertinent to certain relevant background characteristics of these teachers. The second instrument of the study was an attitudinal inventory containing political and personal cynicism, political alienation, political efficacy and citizen duty items. Both the questionnaire and the battery of political attitude tests were to be answered by a selected group of urban secondary social studies teachers.

To allow respondents maximum freedom in answering, booklets, containing both instruments, were distributed through principals of schools to teachers selected by the investigator for inquiry. The

¹For discussion about the "static-group comparison," see Donald T. Campbell, and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally and Company, 1963), pp. 12-13; and Fred E. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, Inc., 1967), pp. 359-373.

anonymity of all teachers participating was assured. Unsigned instruments were forwarded directly to the investigator in addressed, stamped envelopes supplied.

Thereafter, responses received were tabulated by the investigator, and data studied and analyzed. The results appear in the following chapter.

The present chapter contains a detailed description of both instruments of the study, the design of a special battery of political attitude tests, the nature of the components of the investigation, and the statistical procedures followed in processing the data.

I. INSTRUMENTS OF THE STUDY

The Questionnaire

The questionnaire was designed to parallel the first question asked in "Statement of the Problem" and the sub-problem of this investigation.² The questionnaire was divided into seven parts. Ideas for the questionnaire items were gleaned largely from Brian Jones' work.³ A copy of the questionnaire is provided in Appendix B.

²See Chapter I, pp. 6-7.

³Brian M. Jones, "A Descriptive Survey of the Amount of Economics Education in the Social Studies in the Senior High Schools of Alberta" (unpublished Master's thesis, The University of Alberta, 1966), pp. 70-71.

The first part asked questions on the particular political science course taken by social studies teachers. The list of political science courses used was that given by The University of Alberta Calendar, 1967-68: Faculty of Arts and Faculty of Science.⁴ The request for information here had two purposes--to ascertain the nature of the sample in terms of academic preparation in selected political science courses and to derive the independent variable of the study.

The second part inquired of secondary social studies teachers where he or she had taken his or her academic training in political science. The third part provided information about respondents' political science degrees and post-graduate education in political science.

Part four questioned social studies teachers on the number of courses taken in other social science disciplines at university. The list of social sciences employed was that given by Richard Gross and William Badger.⁵

Part five was included to determine relevant background characteristic variables of teachers who answered the questionnaire. It consisted of nine subdivisions designed to determine secondary social studies teachers' sex, marital status, school system in which they are teaching, school board which employed them, level of school at which

⁴The University of Alberta, The University of Alberta Calendar, 1967-68: Faculty of Arts and Faculty of Science (Edmonton, Alberta: Printing Department, The University of Alberta, 1967), pp. 118-122.

⁵Richard E. Gross, and William V. Badger, "Social Studies," Encyclopedia of Educational Research (third edition; New York: The MacMillan Company, 1960), p. 1296.

they were teaching, country of origin, Canadian regional origin, political orientation, age and years of teaching experience. This part consisted of "multiple-choice" and "fill-in-the-blank" type questions.

The sixth part gave teachers an opportunity to make further comments. Part seven attempted to ascertain respondents' voting behavior in the 1965 Canadian federal election, the last provincial election and the last municipal or local election that took place in the geographical area in which they resided. The questions were of a "multiple-choice" type.

Battery of Political Attitude Tests

To answer questions two and three in "Statement of the Problem,"⁶ empirical data, objectively measured, were required as political attitude criteria. In addition to and attached to the questionnaire, respondents were asked to fill out a sixty-five-item attitudinal inventory, all of which were in an agree-disagree format. Measures of political cynicism, political alienation, sense of political efficacy, sense of citizen duty and personal cynicism are based on responses to thirty-six, six, seven, six and ten of these statements, respectively.

Scaleable and reliable measures of those political and personal attitudes selected were adapted from the following:

1. Robert Agger, Marshall Goldstein and Stanley Pearl Test of

⁶See, Chapter I, p. 6.

Political Cynicism;⁷

2. A reduced and modified version of Martin F. Fritz and Charles O. Neidt Practical Policy Test (Test of Cynicism), Form C-S;⁸

3. Wayne E. Thompson and John E. Horton Test of Political Alienation;⁹

4. Angus Campbell, Gerald Gurin and Warren Miller Sense of Political Efficacy Scale,¹⁰ and Sense of Citizen Duty Scale;¹¹

5. Selected and modified items from David Easton and Jack Dennis' eight-item political efficacy scale,¹² Gwynn Nettler's seventeen-item alienation scale,¹³ and Harold Webster, Nevitt Sanford, and Mervin

⁷ Robert E. Agger, Marshall N. Goldstein, and Stanley A. Pearl, "Political Cynicism: Measurement and Meaning," The Journal of Politics, Vol. 23, (August, 1961), p. 479.

⁸ Martin F. Fritz, "A Short-Form Test of Cynicism," Proceedings of the Iowa Academy of Science, Vol. 55, (1948), pp. 319-322.

⁹ Wayne E. Thompson, and John E. Horton, "Political Alienation as a Force in Political Action," Social Forces, Vol. 38, (March, 1960), p. 192.

¹⁰ Angus Campbell, Gerald Gurin, and Warren E. Miller, The Voter Decides (White Plain, N.Y.: Row, Peterson and Company, 1954), p. 187.

¹¹ Ibid., p. 194.

¹² David Easton, and Jack Dennis, "The Child's Acquisition of Regime Norms: Political Efficacy," The American Political Science Review, Vol. 61, (March, 1967), p. 29.

¹³ Gwynn Nettler, "A Measure of Alienation," American Sociological Review, Vol. 22, (December, 1957), p. 675.

Freedman Test, Part J (Cynicism);¹⁴

6. A test of Political Cynicism constructed by the investigator in collaboration with Professor J. Paul Johnston of the Department of Political Science, University of Alberta. The sixty-five-item attitudinal inventory is a shorter version of a 151-item original battery of attitude tests. The reduction was made wholly on the basis of attitude scale scores of 470 subjects collected in a pilot study conducted at the University of Alberta during February and March 1968. A detailed explanation of the pilot study is given in the following section.

II. DESIGN OF THE BATTERY OF POLITICAL ATTITUDE TESTS

Since, at the time of the investigation, there was no published scale of political cynicism available that reflected the Canadian situation, it was decided to build a test of political cynicism, referred to hereinafter as the Grondin-Johnston Test of Political Cynicism. Early in the development of this Test of Political Cynicism, a decision was made to proceed so that the final form of the test would contain twenty tested items, each concerned with a political situation towards which subjects could express cynicism. This was one of the objectives for which a pilot study was undertaken.

¹⁴Harold Webster, Nevitt Sanford, and Mervin Freedman, "A New Instrument for Studying Authoritarianism in Personality," The Journal of Psychology, Vol. 40, (1955), p. 82.

A second objective of the pre-study was to develop a battery of political attitude tests containing no more than sixty-five items dealing with indexes of political attitude in four areas, namely:

1. cynicism,
2. alienation,
3. sense of political efficacy,
4. sense of citizen duty.

Also, to be included in the battery were items which would assess respondents' views of human nature--of what people in general are like--or personal cynicism. Besides the Grondin-Johnston Test of Political Cynicism, no goals were established as to the number of statements which were to comprise each of the remaining attitude scales to be included in the final draft of the battery of attitude tests.

A short battery of political attitude tests was deemed mandatory for economical and practical purposes.¹⁵ The investigator also felt that secondary social studies teachers would be more inclined to respond and to return a short-form attitudinal inventory than a long battery of attitude tests. Thus, a pre-study was carried out essentially to arrange a short-version attitudinal inventory by means of a certain rational statistical procedure.

During December, 1967, and January, 1968, the investigator drafted statements for each of three areas towards which individuals could express feelings of political cynicism (political processes,

¹⁵For a discussion on the concept of practicality, see Robert L. Thorndike, and Elizabeth Hagen, Measurement and Evaluation in Psychology and Education (New York: John Wiley and Sons, Inc., 1955), pp. 143-144.

professional politicians and non-professional politicians). He endeavoured to keep the language in the statements non-technical, in an informal style, and to avoid difficult vocabulary words. Most of the statements were uttered in a procynicism direction, while others were in a con-cynicism direction.

In early January, 1968, a mimeographed collection of statements was produced. This first draft contained 115 items which the investigator considered to be appropriate for inclusion in the Grondin-Johnston Test of Political Cynicism. Copies of the first draft were circulated to staff members of the Department of Political Science at the University of Alberta. Critical appraisal of the items was invited from them. On the basis of comments received and of the assistance provided by Professor J. Paul Johnston, about half of the items were considered inappropriate, thus, were deleted, many of the items were strengthened by rephrasing, and several new items were added prior to the pre-study.

Since all items in the list were derived on an a priori basis, and since it was to be a basic dependent variable of the study, it was felt advisable to attempt to weed out those political cynicism items which were grossly non-discriminating. Accordingly, after the collection of pre-study data, biserial correlations of each item score with respective total scale score were computed. This statistical procedure was carried out to measure the discriminatory power of each item.¹⁶

¹⁶George A. Ferguson, Statistical Analysis in Psychology and Education (second edition; New York: McGraw-Hill Book Company, 1966), p. 242.

In the last week of January, 1968, a 151-item pilot study version of the battery of political attitude tests was mimeographed. In this version there were the following items:

1. sixty items retained from the first draft of the Grondin-Johnston Test of Political Cynicism,
2. sixty-five items from the Fritz and Neidt Test of Cynicism, Form C-S,¹⁷
3. a slightly modified version of Agger and his colleagues' six-item political cynicism scale,¹⁸
4. a six-item political alienation scale devised by Thompson and Horton,¹⁹
5. a seven-item sense of political efficacy scale,
6. a seven-item sense of citizen duty scale.

Each item was randomly distributed throughout the battery so that a "halo effect" of having similar items too close together would be avoided.

During the development of the battery of political attitude tests, a decision was made to retain in the final version of the battery all of Agger and his colleagues' six-item political cynicism scale, all of the Thompson and Horton six-item political alienation scale, and at

¹⁷Fritz, op. cit., pp. 319-322.

¹⁸Agger, Goldstein, and Pearl, op. cit., p. 479.

¹⁹Thompson, and Horton, op. cit., p. 192.

least six items from each of the sense of political efficacy scale and sense of citizen duty scale.

As well as selecting those items to be incorporated in the final draft of the battery of political attitude tests, a decision was made to divide the Fritz and Neidt Test of Cynicism²⁰ into two distinct scales. The first scale consisted of ten items, each more concerned with a political situation than a non-political situation towards which an individual could express feelings of cynicism. These ten items were to be retained in the final draft of the battery. The second scale contained fifty-five items, each more concerned with a non-political situation than a political situation towards which, again, a person could express feelings of cynicism. Only ten of these items were to be included in the final version of the battery. The first scale is referred to hereinafter as the Fritz Political Cynicism Scale and the second scale as the Personal Cynicism Scale.

In addition, during the development of the battery of political attitude tests, consideration was given to the selection of a response scale. The investigator assumed that subjects' past experiences would result in feelings of acceptance or rejection towards each item of the battery, and that these feelings could be expressed quantitatively, that is, mildly or strongly. Accordingly, a four-point response scale (A a d D) was provided for respondents to indicate the strength of their

²⁰Fritz, and Neidt, op. cit., pp. 319-322.

acceptance or rejection of each battery item. To force subjects to reflect as nearly as possible the direction of their reactions to each of the battery's items, there was no "intermediate," "undecided" or "midpoint" position included in the response scale.

Arithmetic weight-values of 0, 0, 1, 2, were assigned to various responses along the scale before scoring the respective attitude tests included in the battery. This scoring plan was selected for the response scale provided in the attitudinal inventory because it had been tentatively singled out by Charles Neidt as the scoring plan to be employed for further investigation of cynicism.²¹ The battery of attitude tests embodies a majority of testing items towards which feelings of cynicism could be expressed by respondents.

Items of the battery of attitude tests were so arranged that a score weight of 2, or 1, would be obtained for certain items by expressing strong or mild agreement with them, and for other items by expressing strong or mild disapproval of them.

Each attitude test included in the battery was to be scored by counting the number of responses having a score-value of 2 and the number of responses having a score-value of 1. Total response scale scores for each test of any respondents were to be secured by combining the weighted responses.

²¹Charles O. Neidt, "Selection of the Optimal Scoring Plan for the Fritz Test of Cynicism," Proceedings of the Iowa Academy of Science, Vol. 54, (1947), pp. 253-262.

To facilitate scoring attitude tests of the battery, responses of the subject were to be transferred to electrically scored answer sheets, and all the scoring was to be accomplished with the use of an International Business Machine Test Scorer. A copy of an answer sheet is provided in Appendix B.

Subjects of the Pilot Study

The pre-study battery of political attitude tests was administered to 470 male and female undergraduate students enrolled at the University of Alberta during the last week of February and first week of March, 1968. These were recruited from the Faculty of Arts, the Faculty of Science, The Faculty of Education, the Faculty of Commerce, the Faculty of Law and the Department of Extension. All subjects were unpaid volunteers. Copies of the pre-study battery of political attitude tests, consisting of 151 items, were distributed to students in regular class. At that time, students were requested to complete and to return the attitudinal inventory to the investigator at the end of the class. Subjects were informed that items of the battery measured "feelings toward political life," and to indicate the extent of their agreement or disagreement with each of the statements on the "Scale of Responses" provided. To maintain anonymity and in the hope to produce more candid or uninhibited replies, students were asked to return the battery unsigned.

Answers of respondents were scored by means of scoring procedures described above. Biseriial correlations of each item with its respective

total scale score were computed and used as measures of the discriminatory power of each item. In general, the most discriminatory items for each attitude scale in the pre-study battery of political attitude tests were chosen for inclusion in the final version of the battery which was to be administered to a selected group of urban secondary social studies teachers.

The final draft of the battery of political attitude tests was mimeographed in middle April, 1968. All the items were "scrambled," and then randomly distributed throughout the 65-item battery. This arrangement was employed in an attempt to avoid having similar items too close together. The 65-item battery incorporated the following attitude scales:

1. the Grondin-Johnston Test of Political Cynicism (Gr.-Jo. Pol. Cyn.), twenty items;
2. the Fritz Political Cynicism Scale (Fritz Pol. Cyn.), ten items;
3. the Agger and his colleagues Test of Political Cynicism (Agger Pol. Cyn.), six items;
4. the Political Alienation Scale (Pol. Alie.), six items;
5. the Sense of Political Efficacy Scale (Pol. Eff.), seven items;
6. the Sense of Citizen Duty Scale (Cit. Duty), six items;
7. the Personal Cynicism Scale (Per. Cyn.), ten items;
8. the Political Cynicism Scale (Pol. Cyn.), thirty-six items.

The latter scale is an aggregate of the Gr.-Jo., Fritz and Agger Pol. Cyn. scales. A copy of the final version of the Battery of Political Attitude Tests is included in Appendix B. A copy of each attitude scale's items and item discriminatory indices is contained in Appendix C.

III. VALIDITY AND RELIABILITY OF THE BATTERY OF POLITICAL ATTITUDE TESTS

Along with procedures for selecting items to be included in attitude scales, one of the main problems in constructing an instrument to measure political attitudes involved the establishment of criteria for judging its adequacy. Two specific criteria were utilized to judge the adequacy of attitude scales embodied in the battery. These are validity and reliability. The following discussion deals with these two criteria.

Validity

The extent to which scales included in the battery of political attitude tests measured the attitude that they are intended to measure was established in the following ways. First, responsible persons in the field of political behavior have thoroughly studied each item for weaknesses. This provided acceptable content validity. Second, empirical and statistical evidences for the validity of respective scale were determined from correlations among attitude scales.²² In Table 1,

²²Thorndike, and Hagen, op. cit., p. 110.

TABLE 1

CORRELATION MATRIX AMONG SCALES OF THE BATTERY OF POLITICAL
ATTITUDE TESTS FOR PILOT STUDY AND (STUDY) GROUPS

Scales	1	2	3	4	5	6	7	8
Gr.-Jo.	--	.78	.60	.70	-.36	-.27	.75	.96
Pol. Cyn.	--	(.68)	(.63)	(.71)	(-.42)	(-.33)	(.65)	(.97)
Fritz			.50	.61	-.33	-.22	.74	.88
Pol. Cyn.			(.49)	(.58)	(-.27)	(-.25)	(.52)	(.80)
Agger				.55	-.18	-.05	.48	.73
Pol. Cyn.				(.59)	(-.29)	(-.24)	(.50)	(.78)
Pol. Alie.					-.37	-.23	.53	.72
					(-.44)	(-.26)	(.51)	(.74)
Pol. Eff.						.55	-.32	-.36
						(.44)	(-.24)	(-.40)
Cit. Duty							-.23	-.24
							(-.35)	(-.33)
Per. Cyn.								.77
								(.68)
Pol. Cyn.								--
								--

above, evidences of congruent and concurrent validities for pilot study and study groups are presented.²³

Evidences of congruent validity is shown by correlations between similar measures of the same political attitude, that is, for example,

²³For a discussion on congruent and concurrent validities, see Thorndike, and Hagen, *op. cit.*, pp. 109-118.

correlations among the Gr.-Jo. Pol. Cyn. Scale, the Fritz Pol. Cyn. Scale, and the Agger Pol. Cyn. Scale. Additional evidences for attitude scales' validity are provided by obtained concurrent validity. For instance, this is shown by correlations among scales of political cynicism, political alienation and personal cynicism.

Thirdly, since all actual scores obtained are combinations of true score and error, correlations presented in Table 1 may be considered a compromise between correlations of underlying true scores and errors. Table 22, Appendix D, presents estimated correlations among attitude scales of the battery with error-free true scores. This provides further statistical evidences for the validity of the eight attitude scales embodied in the battery of political attitude tests. Since it is believed that attitude scales have admissible content and statistical validities, the investigator concluded that the Battery of Political Attitude Tests had acceptable validity for the purpose for which it had been constructed.

Reliability

It was impossible to obtain evidences on the reliability of the eight attitude scales through the test-retest method because copies of the battery of political attitude tests were returned unsigned to the investigator both in the pilot study and study. However, it was possible to obtain evidences on the reliability of the eight attitude scales of the battery through the split-half method.²⁴ Equivalent halves were

²⁴This method is recommended by Ferguson, op. cit., p. 377.

obtained for each attitude scale by placing all the odd-numbered items in one half-scale and all the even-numbered items in another half-scale. Scores were derived for both half-scales and these were correlated. Reliability coefficients for each half-scale resulted. These, then, were used to estimate total-scale reliability scores employing the Spearman-Brown Formula.²⁵ This formula is

$$r_{xx} = \frac{2r_{hh}}{1+r_{hh}} \quad \text{where } r_{hh} \text{ is the actual correlation between two half-length scales.}$$

Table 23, Appendix D, presents the computed half-scale reliability coefficients for both pilot study and study groups. Data with regard to estimated total scale reliability coefficients for eight attitude scales are presented in Table 2, page 65. Since Pearson product-moment correlation coefficients were deemed sufficiently high to indicate a degree of reliability for each attitude scale, the Battery of Political Attitude Tests was considered to have an acceptable level of reliability.

Reference to Table 24, Appendix D, reveals additional evidences on the reliability of the battery's eight attitude scales. While there is evidence that the two sample groups, pilot study and study, cannot be considered random samples from a common population, there is also a noticeable documentation which suggests that most attitude scales generally reproduced approximate quantitative attitude measures for both

²⁵This formula is reproduced from Ferguson, op. cit., p. 378.

TABLE 2

ESTIMATED TOTAL RELIABILITY COEFFICIENTS, t VALUES, z VALUES
AND STANDARD ERROR OF MEASUREMENTS FOR EIGHT ATTITUDE
SCALES: PILOT STUDY AND STUDY GROUPS

SCALES	Pilot Study		Study		$\frac{r_j - r_i}{z}$
	r_j	s_{em}	t	r_i	
Gr.-Jo.					
Pol. Cyn.	.89	8.75	41.47***	.87	1.15
Fritz					
Pol. Cyn.	.75	3.98	24.46***	.56	4.39**
Agger					
Pol. Cyn.	.61	2.86	16.52***	.61	0
Pol. Alie.	.59	2.62	15.94***	.55	.78
Pol. Eff.	.64	3.54	18.20***	.56	1.62
Cit. Duty	.78	3.85	27.32***	.64	3.71**
Per. Cyn.	.75	4.66	24.96***	.72	.84
Pol. Cyn.	.92	14.45	50.20***	.89	2.16*

* Significant at the .05 level.

** Significant at the .01 level.

*** Significant at the .001 level.

groups. In fact, most attitude scales are deemed appreciably consistent and reproducible to indicate a reasonable degree of reliability of the battery of political attitude tests.

III. POPULATION OF THE STUDY

The selection procedure was designed first to obtain a sample of social studies teachers instructing in junior and senior high school classrooms in large urban centres only. Accordingly, the following demographic variables remain constant throughout the study:

1. socio-economic status (SES) as defined by profession,
2. occupation, or white collar workers,
3. place of occupation and residence. (All teachers comprising the population of the study were teaching in two large urban areas in Western Canada.)

The anonymity of individuals answering the questionnaire and the battery of political attitude tests was the second concern. The latter is particularly important in a study of this nature involving personal attitudes about politics and political processes.

The following steps were, therefore, taken:

1. Superintendents of the Calgary Public School District #19, the Calgary Roman Catholic Separate School District #1, the Edmonton Public School District #7 and the Edmonton Roman Catholic Separate School District #7 were asked for permission and assistance in contacting all

secondary social studies teachers who taught in their respective school district. Permission to contact these teachers with some assistance was obtained from three superintendents. A refusal was received from the superintendent of the Edmonton Public School District #7.

2. In late April, 1968, booklets containing both the questionnaire and the battery of political attitude tests were subsequently mailed to principals of schools. They were instructed to forward these booklets to teachers who were designated on removable slips of paper that were attached to each booklet.

3. Secondary social studies teachers then were appealed to answer both the questionnaire and the battery of political attitude tests. Finally, they were asked to return both instruments unsigned directly to the investigator in stamped envelopes provided. It was hoped that this would produce more candid and uninhibited replies.

Nature of the Sample

Of the 492 booklets mailed to 111 principals of schools, 280 (56.91 per cent) were returned to the investigator. Out of the 280 respondents, seventeen refused or failed to answer either parts V and VII of the questionnaire or various items in the battery of political attitude tests, thus, making data still more unrepresentative of the population of these secondary social studies teachers. Table 3 indicates the number, with per cent, of booklets sent to and received from each school district. School districts are designated by letters rather than by their respective name for an obvious reason, that is, anonymity. Table 4, page 69,

TABLE 3

NUMBER OF INSTRUMENTS OF THE INVESTIGATION FORWARDED TO
AND RECEIVED FROM SOCIAL STUDIES TEACHERS

School Districts	No. of School	% of School	No of Instru. Sent	% of Instru. Sent	No. of Instru. Rec'd	% of Instru. Rec'd
A	52	46.85	315	64.02	167	53.02
B	23	20.72	56	11.38	42	75.00
C	36	32.43	121	24.59	54	44.63
Total	111	100.	492	99.99	263	53.46

summarizes the nature of the sample of the study. A more detailed summary of the nature of the sample dichotomized in those teachers having some formal training in political science and those teachers having no training in political science is given in Table 5, page 70.

IV. DATA GATHERING

Data were secured by means of two instruments described above. Four hundred and ninety-two booklets containing both instruments of the study were sent to school principals. They, in turn, forwarded these booklets to secondary social studies teachers previously chosen by the investigator to participate in the study. Booklets were completed and returned directly to the investigator by mail at the convenience of secondary social studies teachers. Responses of 263 (53.46 per cent)

TABLE 4

INVENTORY OF THE NATURE OF THE SAMPLE: VARIABLES BY NUMBER
AND PER CENT OF SECONDARY SOCIAL STUDIES TEACHERS

Variables	Number of Teachers	Per Cent of Teachers
Training in Political Science		
with training	144	54.75
without training	119	45.25
Sex		
male	162	61.60
female	101	38.40
Marital Status		
married	168	63.88
engaged	10	3.80
single	85	32.32
School District		
A	167	63.50
B	42	15.97
C	54	20.53
School System		
public	167	63.50
separate	96	36.50
Level of School		
junior high school	189	71.86
senior high school	74	28.14
Country of Origin		
Canada	232	88.21
United States	5	1.90
Others	26	9.89
Canadian Regional Origin		
Western Provinces	199	75.67
Northwest Territories	2	.76
Central Provinces	5	1.90
Maritime Provinces	19	7.22
Not Applicable	31	11.79
Political Orientation		
liberal	131	49.81
conservative	63	23.95
socialist	27	10.27
independent	42	15.97
Age		
up to 29 years	149	56.65
30 to 44 years	79	30.04
45 years and over	35	13.31
Teaching Experience		
0 to 6 years	161	61.22
7 to 13 years	62	23.57
14 years and over	40	15.21
Voting in Last Federal Election		
yes	215	81.75
no	18	6.84
not eligible	30	11.41
Voting in Last Provincial Election		
yes	219	83.27
no	22	8.37
not eligible	22	8.37
Voting in Last Municipal Election		
yes	196	74.52
no	37	14.07
not eligible	30	11.41

TABLE 5

RELATIONSHIP AMONG TRAINING IN POLITICAL SCIENCE VARIABLE'S GROUPS
AND TEACHER BACKGROUND CHARACTERISTIC VARIABLES' GROUPS

Background Characteristic Variables	Training in Political Science					
	with training		without training		total	
	%	no.	%	no.	%	no.
Sex						
male	63.58	103	36.42	59	100.	162
female	40.59	41	59.41	60	100.	101
Marital Status						
married	54.76	92	45.24	76	100.	168
engaged	80.00	8	20.00	2	100.	10
single	51.76	44	48.24	41	100.	85
School District						
A	54.49	91	45.51	76	100.	167
B	61.90	26	38.10	16	100.	42
C	50.00	27	50.00	27	100.	54
School System						
public	54.49	91	45.51	76	100.	167
separate	55.21	53	44.79	43	100.	96
Level of School						
junior high	47.62	90	52.38	99	100.	189
senior high	72.97	54	27.03	20	100.	74
Country of Origin						
Canada	56.47	131	43.53	101	100.	232
U.S.A.	20.00	1	80.00	4	100.	5
Others	46.15	12	53.85	14	100.	26
Canadian Regional Or.						
Western Canada	55.10	108	44.90	88	100.	196
Northwest Ter.	100.00	2	00.00	0	100.	2
Central Canada	60.00	9	40.00	6	100.	15
Maritime Prov.	63.17	12	36.84	7	100.	19
Not Applicable	41.94	13	58.06	18	100.	31
Political Orientation						
liberal	58.02	76	41.68	55	100.	131
conservative	52.38	33	47.62	30	100.	63
socialist	74.07	20	25.93	7	100.	27
independent	35.71	14	64.29	27	100.	42
Age						
up to 29 years	53.69	80	46.31	69	100.	149
30 to 44 years	54.43	43	45.57	36	100.	79
45 years and over	60.00	21	40.00	14	100.	35
Teaching Experience						
0 to 6 years	53.42	86	46.58	75	100.	161
7 to 13 years	50.00	31	50.00	31	100.	62
14 years and over	67.50	27	32.50	13	100.	40
Voting - Fed. Election						
yes	58.60	126	41.40	89	100.	215
no	50.00	9	50.00	9	100.	18
not eligible	30.00	9	70.00	21	100.	30
Voting - Prov. Election						
yes	55.71	122	44.29	97	100.	219
no	59.09	13	40.91	9	100.	22
not eligible	40.91	9	59.09	13	100.	22
Voting - Mun. Election						
yes	58.16	114	41.84	82	100.	196
no	45.95	17	54.04	20	100.	37
not eligible	43.33	13	56.67	17	100.	30

teachers were available for the study. The information contained in these booklets (263) which consisted of both instruments of the study, the questionnaire and the battery of political attitude tests, constituted the data of the study.

V. STATISTICAL PROCEDURES

Secondary social studies teachers who completed and returned both instruments of the study were assigned identification numbers. These identification numbers with data pertaining to teachers' relevant background characteristic variables, or control variables, and to the independent variable--training in political science variable--were punched on IBM cards. Respondents' total scores for respective attitude scale, comprising the battery of political attitude tests, were computed by means of the scoring plan and scoring procedures which were outlined above (see, pp. 57-59). Afterwards, these were transferred to their particular IBM cards. Data thus entered on 604 IBM cards were then treated statistically in a manner appropriate to the data and in relation to each hypothesis advance for investigation.²⁶

Since rigorous experimental controls on various background characteristic variables of the sample group could not be employed, the first consideration was to test the significance of differences between teachers with political science training group and teachers with no

²⁶Chapter I, pp. 14-15.

political science training group with respect to eight attitude scale mean scores of the battery of political attitude tests. A one-way analysis of variance was carried out to test null hypothesis I of the study.²⁷ This statistical technique was also used to test the significance of differences among attitude scales' group mean scores of selected relevant background characteristic variables of secondary social studies teachers.

Since it was desired to remove the effect of initial differences between teachers with political science training group and teachers with no political science training group with respect to teachers' relevant background characteristic variables (uncontrolled factors), a one-way analysis of covariance, with characteristic variables as covariates, was considered appropriate for testing null hypothesis II of the study.²⁸ This statistical procedure was employed, then, to adjust for effects of uncontrolled variables and to permit, thereby, a more valid evaluation of the outcome of the study.

The following assumptions were made in the mathematical development of analyses of variance:

1. The distribution of variables in the population from which the sample was drawn is normal.
2. Variances in the population from which group samples were drawn are equal. This is known as homogeneity of variance.

²⁷Chapter I, p. 14.

²⁸Ibid.

3. Effects of various factors on the total variation are additive.²⁹

Since the sample of the study is considered a large sample, and since no extreme departure from normality was detected by mere inspection of data, probabilities of computed F values can be employed as close approximation to the true probabilities. Further, D. J. Finney says:

The validity of the analysis of variance as a method of separating the total variation in a set of observations into components from different sources does not depend upon any assumption of normality. It requires only that the observations are independent and arise from the usual type of additive model.³⁰

The tenability of the second assumption for each analysis of variance carried out in the study was confirmed by employing the Cochran test as described by B. J. Winer.³¹ The more complex Bartlett's test was used where wide cell frequency existed among groups of characteristic variables. Variances of category groups were generally homogeneous in most cases. However, where reasonable departures from the assumption of homogeneity of variance did occur, it is contended that these do not seriously affect the validity of inferences drawn from the data.³² The

²⁹These assumptions are discussed in greater detail in Ferguson, op. cit., pp. 294-295.

³⁰D. J. Finney, An Introduction to the Theory of Experimental Design (Chicago: University of Chicago, 1960), p. 18.

³¹B. J. Winer, Statistical Principles in Experimental Design (New York: McGraw-Hill Book Company, 1962), pp. 94-95.

³²Ferguson, op. cit., p. 295.

investigator was concerned only about relatively gross departures from the hypothesis of equal sample variances.

Additivity of effects has been assumed.

Whenever statistical tests on the difference between group means were carried out, levels of significance were as follows. If p is less than or equal to .05 ($p \leq .05$) then the difference is significant. If p is less than or equal to .01 ($p \leq .01$) the difference is very significant. If the value of p is between .10 and .05 or equal to .10 ($.05 < p \leq .10$), then a cautious interpretation is made that there is some difference between category groups. Therefore, no differences which were found to be significant beyond the .10 level were rejected out-of-hand as being due to chance. Rather, these findings have been reported on a tentative basis. Definite judgement concerning such differences found to be significant between the .10 and .05 levels has been withheld until such time as further research should have the opportunity of collaborating or contradicting these tenuous findings. Conclusions reached in the study on the basis of statistical tests are relatively liberal since the probability of indicating significant differences between category group means as a result of sampling error is .05.

Wherever a significant F ratio resulted following the application of an analysis of variance, the Scheffé S-method was employed to compare differences between pair of means within each of the characteristic variables. Since this method permits the testing of differences among all possible means, a more meaningful interpretation of the data than merely that category groups within characteristic variables were not

the same could be drawn. In addition, this method is affected very little if assumptions of normality and of homogeneity of variances are not satisfied. Finally, the Scheffé S-method is more appropriate when category group sizes differ markedly.³³

Since the Scheffé procedure is more rigorous than other methods of comparison of pairs of means with regard to Type I error, and since it leads to fewer significant results, the investigator chose to employ a less rigorous level of significance when using the Scheffé S-method. The .10 level of significance was used instead of the .05 or .01 level. This is Scheffé recommendation.³⁴

Test of the null hypothesis III of the study³⁵ was carried out by the use of multiple regression analysis. This statistical procedure is an adaptation of that recommended by Ferguson.³⁶ The technique of multiple regression was employed because it was desired to determine relative contribution of the independent and control variables in predicting scores of political attitude scales. This procedure then permits the selection of a number of variables which provide the best possible estimate of attitude scale measures.

³³William C. Guenther, Analyses of Variance (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1964), pp. 57-59.

³⁴Ferguson, op. cit., pp. 296-297.

³⁵Chapter I, page 14.

³⁶Ferguson, op. cit., pp. 385-390.

In regard to null hypothesis IV advances in the study,³⁷ relationships involved were treated by the calculation of Pearson product-moment correlation coefficients. These, afterwards, were submitted to a "t-test" to determine their significances from zero.³⁸

Computational procedures for analyses of variance (ANOVA), covariance (ANCOVA) and multiple regression described by Ferguson³⁹ have been programmed for use with the University of Alberta's computer. Programs were made available to the investigator by personnel of the Division of Educational Research Services, Faculty of Education. Accordingly, statistical analyses were handled by the International Business Machine 360 computer with the use of suitable programs both in fortran language and APL/360 at the University of Alberta.

The present chapter has been a description of instruments employed to collect the data of the study, of the experimental design, and of statistical procedures followed in analyzing the data of the study. The following chapter presents results of analyses of the data.

³⁷Chapter I, pp. 14-15.

³⁸Ferguson, op. cit., pp. 186-187.

³⁹Ibid., chapters 18, 20 and 24.

CHAPTER IV

RESULTS OF THE INVESTIGATION

In the preceding chapters, problems under consideration have been stated, hypotheses pertinent to the problems have been formulated and specific procedures for testing these hypotheses have been outlined. Results of the study are presented here in two sections. The first section, discussed below, considers findings from the statistical analyses. Section Two involves a summary of questionnaire findings on the academic qualification of secondary social studies teachers. All tables relating to these results are presented either in this chapter or in Appendix D at the end of the study.

I. FINDINGS FROM STATISTICAL ANALYSES

In this section, generally, each of the null hypotheses tested is stated immediately before the presentation of results of appropriate statistical tests. An unassuming interpretation follows the presentation of each set of results.

Test of Hypothesis I - Academic Training in Political Science

Null hypothesis I. There are no significant differences between the mean scores obtained by groups of those secondary social studies teachers who have formal academic preparation in political science and those who have no formal academic preparation in political science on

- a) the Grondin-Johnston Political Cynicism Scale,
- b) the Fritz Political Cynicism Scale,
- c) the Agger Political Cynicism Scale,
- d) the Political Alienation Scale,
- e) the Sense of Political Efficacy Scale,
- f) the Sense of Citizen Duty Scale,
- g) the Personal Cynicism Scale,
- h) the Political Cynicism Scale.

Table 6 lists group means and standard deviations for each attitude scale. Table 7 summarizes results of analyses of variance carried out on eight attitude scale scores. In Table 7, and in succeeding tables that summarize results of analyses of variance carried out on attitude scale scores, the following abbreviations are used:

N represents the number of teachers' scores involved

\bar{X} represents a group mean score

SS represents the "sum of squares" or "the sum of squares of differences between each score and its particular group mean"

[i.e., $\sum_{i=1} (X_{ij} - \bar{X}_i)^2$]

MS represents the mean square or variance estimate

MS_{GRP} represents the between-groups mean square

MS_{WTH} represents the within-groups or error mean square

F represents the F-ratio obtained by dividing MS_{GRP} by MS_{WTH}

$F_{.05} (1,261)$ represents the value of F required for significance at the .05 level with 1 degree of freedom associated with the MS_{GRP} and 261 degrees of freedom associated with the MS_{WTH} (Critical F-ratio)

P represents estimate of probability that a significant difference among group mean scores occurs as a result of sampling error.

As shown immediately below Table 7, the critical F-ratio for .10-, .05-,

TABLE 6
MEANS AND STANDARD DEVIATIONS OF TRAINING IN
POLITICAL SCIENCE VARIABLE GROUPS FOR EIGHT
ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	with	144	5.014	4.602
Pol. Cyn.	without	119	5.218	5.121
	total	263	5.106	4.845
Fritz	with	144	2.049	1.681
Pol. Cyn.	without	119	2.420	2.251
	total	263	2.217	1.968
Agger	with	144	3.215	2.112
Pol. Cyn.	without	119	2.857	2.014
	total	263	2.491	2.076
Pol. Alie.	with	144	2.396	1.819
	without	119	2.605	2.135
	total	263	2.491	1.971
Pol. Eff.	with	144	8.021	2.800
	without	119	7.471	2.621
	total	263	7.772	2.734
Cit. Duty	with	114	9.250	2.029
	without	119	9.303	2.339
	total	263	9.274	2.175
Per. Cyn.	with	144	2.174	2.196
	without	119	2.235	2.503
	total	263	2.202	2.340
Pol. Cyn.	with	144	10.278	7.251
	without	119	10.454	8.491
	total	263	10.357	7.837

TABLE 7

SUMMARY OF ANALYSES OF VARIANCE OF TRAINING IN POLITICAL
SCIENCE VARIABLE GROUP MEAN SCORES FOR EIGHT ATTITUDE SCALES

Scales	Source of Variation	SS	df	MS	F	P
Gro.-Jo.	GRP	2.73	1	2.73		
Pol. Cyn.	WTH	6170.3	261	23.64	.12	.73
Fritz	GRP	8.99	1	8.99		
Pol. Cyn.	WTH	1009.65	261	3.87	2.33	.13
Agger	GRP	8.36	1	8.36		
Pol. Cyn.	WTH	1124.9	261	4.31	1.94	.16
Pol. Alie.	GRP	2.85	1	2.85		
	WTH	1018.87	261	3.90	.73	.39
Pol. Eff.	GRP	19.73	1	19.73		
	WTH	1946.58	261	7.46	2.64	.11
Cit. Duty	GRP	.18	1	.18		
	WTH	1244.1	261	4.77	.04	.85
Per. Cyn.	GRP	.25	1	.25		
	WTH	1440.07	261	5.25	.04	.83
Pol. Cyn.	GRP	2.02	1	2.02		
	WTH	16150.39	261	61.88	.03	.86

$$F_{.10}(1,261) = 2.71$$

$$F_{.05}(1,261) = 3.84$$

$$F_{.01}(1,261) = 6.63$$

and .01-level tests and associated degrees of freedom in this instance are 2.71, 3.84 and 6.63 respectively. This means that (1) there is some statistically significant difference between group mean scores if the appropriate ratio exceeds 2.71; (2) there is a statistically significant

difference between group mean scores if the appropriate ratio exceeds 3.84; and there is a highly statistically significant difference between group mean scores if the appropriate ratio exceeds 6.63. The use of .05-level test ensures that a mean score difference would not be considered significant unless it could only occur as a result of sampling error in less than five out of one hundred such sample mean score comparisons.

Analyses of variance were used to compare teachers with training in political science group means with teachers without training in political science group means on eight attitude scales which were contained in the Battery of Political Attitude Tests. Inspection of the F-ratios in Table 7 shows that there were no significant differences between the group mean scores on all eight attitude scales. Since the observed F-ratios for comparisons between group mean scores on eight attitude scales failed to exceed either .10, .05 or .01 critical value, null hypothesis I was accepted.

Comment. On the basis of this evidence, the investigator concluded that those secondary social studies teachers with academic preparation in political science did not score significantly lower or higher than those secondary social studies teachers without academic preparation in political science on all eight attitude scales which were incorporated in the Battery of Political Attitude Tests.

Test of Hypotheses - Teachers' Relevant Background Characteristic Variables

Other plausible hypotheses, although not explicitly stated, were that significant differences would result among group means of relevant background characteristic variables of secondary social studies teachers on eight attitude scale scores. Since results of above analyses of variance led to the acceptance of null hypothesis I, the investigator deems desirable the exploration of whether or not any statistically significant differences existed among group mean scores of selected characteristic variables on all eight attitude scales. Scores generated on the attitudinal inventory's eight attitude scales were compared independently for group mean differences within each of the selected characteristic variables. Based on previous research and related literature, thirteen hypotheses were proposed. All of these associated hypotheses were tested by an analysis of variance technique. These hypotheses, in the null form, are as follows:

There are no significant differences among mean scores obtained by groups of

1. those secondary social studies teachers who are male and those who are female,
2. those secondary social studies teachers who are married, those who are engaged and those who are single,
3. those secondary social studies teachers who are teaching in a public school system and those who are teaching in a separate school system,
4. those secondary social studies teachers who are employed by school board A, those who are employed by school board B and those who are employed by school board C,

5. those secondary social studies teachers who are teaching at junior high school level and those who are teaching at senior high school level,
6. those secondary social studies teachers who were born in Canada and those who were born outside Canada,
7. those secondary social studies teachers who were born in Western Canada, those who were born in Central Canada, those who were born in Maritime Provinces and those not born in Canada,
8. those secondary social studies teachers who are liberals, those who are conservatives, those who are socialists and those who are independents,
9. those secondary social studies teachers who are up to 29 years of age, those who are 30 to 44 years of age and those who are 45 years of age and over,
10. those secondary social studies teachers who have 0 to 6 years, those who have 7 to 13 years and those who have 14 years and over of teaching experience,
11. those secondary social studies teachers who voted, those who did not vote and those who were not eligible to vote in the last federal election (Canada, 1965),
12. those secondary social studies teachers who voted, those who did not vote and those who were not eligible to vote in the last provincial election (Alberta, 1967),
13. those secondary social studies teachers who voted, those who did not vote, and those who were not eligible to vote in the last local or municipal election

on

- a) the Grondin-Johnston Political Cynicism Scale,
- b) the Fritz Political Cynicism Scale,
- c) the Agger Political Cynicism Scale,
- d) the Political Alienation Scale,
- e) the Sense of Political Efficacy Scale,
- f) the Sense of Citizen Duty Scale,
- g) the Personal Cynicism Scale,
- h) the Political Cynicism Scale.

Results of statistical analyses of data with respect to each of the above null hypotheses are presented in the following pages of this chapter.

Null hypothesis 1 - sex. Table 25, Appendix D, summarizes mean scores and standard deviations obtained respectively by male and female teachers on eight attitude scales. Summary of computed F-ratios for sex group mean score differences are presented in Table 8. More detail is supplied in Table 26, Appendix D.

Since the resulting F-ratio (3.25) yielded in testing the significance of differences between mean scores of both sex groups on the Gr.-Jo. Pol. Cyn. Scale exceeded the .10 critical value (2.71), null hypothesis 1a) was tentatively rejected until such time as further research should confirm or contradict this result.

Since the observed F-ratios (16.3 and 5.43) computed in comparing the mean scores between sex groups on the Agger Pol. Cyn. Scale and the Pol. Cyn. Scale exceeded the .05 critical value (3.84), null hypotheses 1c) and 1h) were rejected.

No significant differences between group mean scores of sex variable were found on either of the remaining five attitude scales. In light of these analyses, null hypotheses 1b), 1d), 1e), 1f) and 1g) were accepted.

Since significant differences were found between males and females' mean scores on the above mentioned attitude scales, the Scheffé S-method was employed to further test which of the mean sex group scores contributed most to the significant F-ratios observed in Table 8.

TABLE 8

F-VALUES FOR BACKGROUND CHARACTERISTIC VARIABLES BY ATTITUDE SCALES

Variables	Gr.-Jo. Pol. Cyn.	Fritz Pol. Cyn.	Agger Pol. Cyn.	Pol. Alie.	Pol. Eff.	Cit. Duty	Per. Cyn.	Pol. Cyn.
Sex	3.25*	.2	16.3#	1.27	.26	.11	.16	5.43**
Marital Status	.66	.44	1.65	1.37	.79	1.27	.6	.48
School Board	1.58	1.65	3.48**	1.65	.4	.19	.17	2.47*
School System	3.17*	3.29*	6.88***	3.11*	.8	.14	.26	4.95**
Level of School	.46	1.25	.11	.33	.12	2.24	2.31	.06
Country of Ori.	.02	.01	.02	.57	.13	1.85	.77	.00
Can. Reg. Origin	.08	.66	.21	.15	.44	1.43	1.31	.09
Pol. Orientation	4.67***	2.38*	2.55*	1.56	1.29	.47	1.53	4.00***
Age	.43	.26	3.11**	.75	.69	.15	2.99**	.94
Teaching Experi.	.31	.61	.89	.02	.32	.28	1.08	.43
Voting - Federal	.65	.64	.81	1.3	.01	3.14**	1.55	.97
Voting - Prov.	.05	.86	.81	.05	.42	2.15	2.13	.02
Voting - Local	.58	.90	.24	2.80*	.58	3.79**	2.18	.69

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

Significant at the .001 level.

Results of this technique indicate that male teachers as a whole scored significantly higher on the Gr.-Jo. Pol. Cyn. Scale, the Agger Pol. Cyn. Scale and the Pol. Cyn. Scale than female teachers. Although differences between group mean scores on the remaining five attitude scales are not statistically significant, the direction of differences generally favours male teachers. Table 27, Appendix D, shows a summary of probability matrix obtained by use of the Scheffe S-method in each of these inter-sex group mean score comparisons for eight attitude scales.

The table of matrix is read from left to right. For each contrast, there is a double entry in the body of the table. The upper entry is the absolute difference between group mean scores being compared. The lower entry, enclosed by parentheses, is the probability statement of level of significance; that is, the probability of committing a Type I error by rejecting a true hypothesis. If the probability is less than or equal to .10 level of significance ($p \leq .10$), means are considered to be significantly different.

Results yielded by sex on attitude measures were somewhat equivocal. Only three of the eight comparisons between sex groups' mean scores on attitude scales reached the .10 level of significance or better. The other five comparisons were not statistically significant although differences were mostly in the direction predicted. It was interesting to note that males consistently scored higher than females on scales that assess respondents' degree of political cynicism. On the basis of preceding evidence, the investigator concluded that secondary social

studies male teachers generally tended to score higher on measures of political cynicism than secondary social studies female teachers.

Null hypothesis 2 - marital status. Table 28, Appendix D, shows mean scores and standard deviations for all three marital status groups on eight attitude scales.

Analyses of variance were used to test the significance of differences among group mean scores of marital status variable on attitude scale scores. Table 8, page 85, summarized F-ratios which were computed in testing the significance of group mean score differences. A more detailed presentation is observed in Table 29, Appendix D. Inspection of F-ratios in both tables shows that there were no significant differences among marital status group mean scores on all eight attitude scales. In light of these analyses, null hypothesis 2 was accepted.

Since there was no support in the above analyses of data for the notion of statistically significant differences among marital status group mean scores on attitude scales, the investigator concluded that, within marital status variable, group mean scores tended to remain relatively similar.

Null hypothesis 3 - school system. Means and standard deviations for each school system group obtained on eight attitude scales are reported in Table 30, Appendix D.

Analyses of variance were employed to test the significance of differences between group mean scores of school system variable. As reported in Tables 8, page 85, and 31, Appendix D, five out of eight

resulting F-ratios, which were computed in these analyses, show significant differences between school system group mean scores. Other mean score differences tended to be slight and statistically non-significant.

Since tests of the significance of differences between group mean scores on eight attitude scales yielded five significant F-ratios, the Scheffe' S-method was employed to further test which of the inter-school system group mean scores were significant. Comparisons of group mean scores, presented in Table 32, Appendix D, show that teachers who are teaching in a separate school system scored significantly lower on the four scales used to index respondents' degree of political cynicism and on the scale used to measure teachers' degree of political alienation. Differences in mean scores on the Pol. Eff. Scale, the Cit. Duty Scale and the Per. Cyn. Scale between both school system groups were not statistically significant; however, the public school system group consistently achieved higher mean scores than the separate school system group.

On the basis of these statistical tests, null hypotheses 3a), 3b), 3c), 3d) and 3h) were rejected and null hypotheses 3e), 3f) and 3g) were accepted.

In light of the information provided by analyses of variance and the Scheffe' technique, the investigator concluded that teachers who are teaching in a public school system as a whole scored significantly higher on four measures of political cynicism and one measure of political alienation than teachers who are teaching in a separate school system. No definite explanation could be given for these results.

The researcher would speculate that differences resulted from variables other than the one under investigation such as religious preference. Further research to investigate these findings is proposed, using religious preference groups rather than school system groups as employed in the study. No further attempt at explanation of these results is given here.

Null hypothesis 4 - school board. Means and standard deviations of school board groups investigated are shown in Table 33, Appendix D.

Analyses of variance were carried out on these data. The only F-ratios for among school board group mean score comparisons to reach acceptable levels of significance were observed on the Agger Pol. Cyn. Scale and the Pol. Cyn. Scale. Other mean score differences among school board groups tended to be slight. Results of these analyses are presented in Tables 8, page 85, and 34, Appendix D.

The Scheffé S-method was employed to test further which of the group mean scores contributed most to the significant F-ratios observed in Table 8. This technique resulted in the identification of school board C group as the only group to differ significantly from school board A group, but not from school board B group, in mean scores obtained on the Agger Pol. Cyn. Scale. The mean score of school board C group was significantly lower than the mean score of school board A group. This was only one of eight attitude scale mean score comparisons among school board groups, however, and the remaining seven did not reach a minimum acceptable probabilities. Table 35, Appendix D, shows P values obtained by use of the Scheffé S-method in each of these inter-school board group mean score comparisons.

Evidence, although rather tenuous, suggests that teachers who are employed by school board A tended to score higher than either teachers who are employed by school board B or those employed by school board C on measures of political cynicism. Null hypotheses 4c) and 4h) were rejected until such time as further research should confirm or contradict these results. Null hypotheses 4a, 4b, 4d, 4e, 4f, and 4g were accepted.

Null hypothesis 5 - level of school. Table 36, Appendix D, presents mean scores and standard deviations for both level of school groups on eight attitude scales.

One-way analyses of variance were performed to compare differences between junior high school group mean scores and senior high school group mean scores on eight attitude scales. Results of these analyses are presented in Tables 8, page 85, and 37, Appendix D. None of the computed F-ratios in these analyses reached the minimum value required for any acceptable level of significance.

On the basis of these findings, null hypothesis 5 was accepted.

Null hypothesis 6 - country of origin. Mean scores and standard deviations for each of the country of origin groups are presented in Table 38, Appendix D.

Analyses of variance were used to test the significance of differences between country of origin groups' mean scores on attitude scales. Data, contributed by these analyses, are shown in Tables 8, page 85, and 39, Appendix D. There is no support in these data for the notion of statistically significant differences between country of origin groups' mean scores on all eight attitude scales. Again, no

statistically significant F-ratios were yielded in these analyses of variance.

In light of these evidences, null hypothesis 6 was accepted.

Null hypothesis 7 - Canadian regional origin. Mean scores and standard deviations computed on eight attitude scales for Canadian regional origin groups are presented in Table 40, Appendix D.

Analyses of variance were performed to test the significance of differences among Canadian regional origin groups' mean scores; data of these analyses are presented in Table 41, Appendix D, while a summary of computed F-ratios is given in Table 8, page 85. None of the differences among Canadian regional origin groups' mean scores obtained on indices used to measure respondents' political and personal attitudes were statistically significant; that is, analyses of variance yielded no significant F-ratios. Results of these analyses, reported in Table 41, Appendix D, lend credence to the notion that secondary social studies teachers constituting Canadian regional origin groups obtained relatively comparable attitude scale scores.

On the basis of this information, null hypothesis 7 was accepted.

Null hypothesis 8 - political orientation. Mean scores and standard deviations for each political orientation group on eight attitude scales are presented in Table 42, Appendix D.

In one-way analyses of variance carried out to test significance of differences among political orientation groups' mean scores, only on four out of eight attitude scales were there statistically significant differences among group means scores yielded. These four attitude scales

for which significant F-ratios were computed, all were indices of respondents' degree of political cynicism. Results of these analyses are presented in Tables 8, page 85, and 43, Appendix D.

The use of the Scheffé S-method was employed to further compare inter-political orientation group mean scores. The use of this technique, which is less apt to accept chance differences than use of the F statistic, revealed some inconsistency. The conservative group obtained a significantly higher mean score than both the liberal and the socialist groups on the Gr.-Jo. Pol. Cyn. Scale. Although conservative group as a whole obtained a higher mean score than the independent group on this scale, the difference was not statistically significant. In addition, the conservative group scored significantly higher than the liberal group on the Pol. Cyn. Scale. No significant differences were found among the conservative group's mean score and both the socialist group's and independent group's mean scores on the latter attitude scale. Differences among group mean scores on the remaining six attitude scales were not statistically significant. Each of these comparisons are presented in Table 44, Appendix D.

On the basis of preceding statistical tests, the investigator made the following decisions: (1) null hypotheses 8a) and 8h) were rejected, (2) null hypotheses 8b) and 8c) were tentatively accepted until such time as further research should confirm or contradict these results, and (3) null hypotheses 8d), 8e), 8f) and 8g) were accepted.

On the Gr.-Jo. Pol. Cyn. Scale, the conservative group as a whole scored significantly higher than either the liberal or the socialist group, but not statistically significantly higher than the independent group. The difference between the conservative group mean and the liberal group mean on the Pol. Cyn. Scale was statistically significant. Although the conservative group scored higher than either the socialist group or the independent group on the Pol. Cyn. Scale, differences were not statistically significant. When using the Scheffé S-method for multiple comparisons among political orientation groups' mean scores on the Fritz Pol. Cyn. Scale and the Agger Pol. Cyn. Scale, no significant differences were computed, even though the conservative group consistently attained higher mean scores than the other three political orientation groups and even though significant F-ratios had resulted from analyses of variance on these two attitude scales.

Null hypothesis 9 - age. Means and standard deviations for all three age groups on eight attitude scales were computed. Table 45, Appendix D, presents the result of these computations.

Testing the significance of differences among age groups' mean scores on eight attitude scales was achieved by employing analyses of variance. Resulting F-ratios computed in six of these analyses did not reach the minimum acceptable level of significance. Obtained mean score differences among age groups yielded significant F-ratios on the Agger Pol. Cyn. Scale and the Per. Cyn. Scale. These analyses are presented in Tables 46, Appendix D, and 8, page 85.

Since significant F-ratios were computed in two of the analyses of variance, the use of the Scheffé S-method was employed to test which of the inter-age group mean scores were significant. Results of these comparisons, which are shown in Table 47, Appendix D, indicate that the 29 years and less group scored significantly higher than the 45 years of age and over group on the Agger Pol. Cyn. Scale and Per. Cyn. Scale. Other mean score differences tended to be large between the 30 to 44 years of age group and the 45 years of age and over group on the above two attitude scales; however, despite provocative findings, differences were judged not statistically significant. No significant differences among group mean scores were observed in any of the remaining six attitude scales.

In light of these statistical tests, null hypotheses 9c) and 9g) were rejected and the remaining six null hypotheses were accepted.

Differences among age groups' mean scores on eight attitude scales were treated for statistical significance. Afterward, it was concluded that there were significant differences between the 29 years and less group and the 45 years and over group on the Agger Pol. Cyn. Scale and the Per. Cyn. Scale. Older secondary social studies teachers obtained statistically significant lower scores than younger teachers on these two attitude scales. Neither of the computed values for differences among age group mean scores on the other six attitude scales reached critical values required for any acceptable level of significance.

Null hypothesis 10 - years of teaching experience. Table 48, Appendix D, lists means and standard deviations computed for each years of teaching experience group on eight attitude scales.

Differences among years of teaching experience groups' mean scores were tested for significance with the use of analyses of variance. Data, contributed by these analyses, are shown in Tables 8, page 85, and 49, Appendix D. There is no support in these data for the notion of significant differences among group mean scores on all eight attitude scales. Neither of the computed F-ratios reach the minimum acceptable level of significance.

Since all computed F-ratios listed in Tables 8 and 49 failed to exceed any of the critical F values, null hypothesis 10 was statistically substained.

Null hypothesis 11 - voting in last federal election. Means and standard deviations obtained by voting in last federal election groups on eight attitude scales are disclosed in Table 50, Appendix D.

In order to assess among-voting in last federal election group differences in mean scores obtained on attitude scales, one-way analyses of variance were carried out. These analyses are presented in Table 51, Appendix D, while computed F-ratios are listed in Table 8, page 85.

Solely the F-ratio for differences among group mean scores on the Cit. Duty Scale was found to be significant at the .05 level. The F values obtained for differences among voting in last federal election groups' mean scores on the remaining seven attitude scales were not statistically significant.

The use of the Scheffé S-method was employed to compare differences between pairs of individual mean. This technique resulted in the identification of those teachers who voted in the last federal election as the only group to differ significantly from those teachers who did not vote in the last federal election on the Cit. Duty Scale. The mean score attained by "those who voted" group was statistically significant higher than "those who did not vote" group. Although "those who voted" group obtained a higher mean score than "those who were not eligible" group on that attitude scale, the difference was not statistically significant. Table 52, Appendix D, presents data obtained by use of the Scheffe technique for each attitude scale.

Reference to Tables 8, 51 and 52 shows a significant difference among voting in last federal election groups' mean scores on the Citizen Duty Scale. The F-ratio was found to be significant at the .05 level. The difference was in favor of "those who voted in last federal election" group and, therefore, rejected the null hypothesis 11f). This was only one of eight attitude comparisons among voting in last federal election groups' mean scores, however, and the remaining seven did not reach a minimum level of significance. Null hypotheses for these seven attitude scales were accepted.

Null hypothesis 12 - voting in last provincial election. Mean scores and standard deviations which was yielded on eight attitude scales by voting in last provincial election groups are reported in Table 53, Appendix A.

Differences among mean scores on attitude scales among groups of voting in last provincial election factor were analyzed for statistical significance. One-way analyses of variance were employed to determine the significance of differences among group mean scores. Data, contributed by these instruments, are presented in Tables 8, page 85, and 54, Appendix D. No significant differences among group mean scores were observed on all eight attitude scales. None of the F-ratios yielded in analyses of variance did reach critical values required for any acceptable level of significance.

On the basis of the above statistical procedure, the investigator judged that computed data lent sufficient support to permit the acceptance of this null hypothesis. Null hypothesis 12, therefore, was accepted.

Null hypothesis 13 - voting in last municipal election. Table 55, Appendix D, reveals the computed mean scores and standard deviations for all three groups of voting in last municipal election variable on eight attitude scales.

One-way analyses of variance were used to test the significance of differences among group mean scores on each attitude scale. Significant F-ratios were observed on the Pol. Alie. Scale and the Cit. Duty Scale. Computed F values on the remaining six attitude scales failed to reach critical values required for any acceptable level of significance. These analyses are presented in Table 56, Appendix D.

Since significant differences were found among the three group mean scores on the Pol. Alie. Scale and the Cit. Duty Scale, group mean scores were compared among themselves to discover between which group

means significant differences occurred. In order to make these comparisons, the Scheffé S-method was used. Table 57, Appendix D, summarizes findings of the Scheffé procedure as applied to all three groups of voting in last municipal election variable on eight attitude scales. Referring to the latter table, one finds some inconsistency. The "did not vote" group mean score was significantly different from the "not eligible to vote" group mean score on the Pol. Alie. Scale, and the "did not vote" group mean was the highest. In addition, the "did not vote" group mean score was significantly different from the "did vote" group mean score on the Cit. Duty Scale, and the "did not vote" group mean was the lowest. Although differences among group mean scores were observed on the other six attitude scales, these tended to be either slight or statistically non-significant. However, it is interesting to note that the "did not vote" group consistently obtained higher mean scores than either the "did vote" group or the "not eligible to vote" group on measures of political cynicism, political alienation and personal cynicism.

On the basis of preceding statistical procedures, it was concluded that the "did not vote" group obtained, firstly, a significantly higher mean score than the "not eligible to vote" group on the Pol. Alie. Scale and, secondly, a significantly lower mean score than "did vote" group on the Cit. Duty Scale. Examination of Table 57 and critical F-ratios, reported in Table 8, page 85, led the investigator to reject null hypotheses 13d) and 13f) and to accept null hypotheses 13a), 13b), 13c), 13e), 13g) and 13h).

Test of Hypothesis II - Academic Training in Political Science

Null hypothesis II. Although group differences in regard to relevant background characteristic variables are taken into account, there are no significant differences between group mean scores obtained by those secondary social studies teachers who have some formal academic preparation in political science and those who do not have formal academic preparation in political science on

- a) the Grondin-Johnston Political Cynicism Scale,
- b) the Fritz Political Cynicism Scale,
- c) the Agger Political Cynicism Scale,
- d) the Political Alienation Scale,
- e) the Sense of Political Efficacy Scale,
- f) the Sense of Citizen Duty Scale,
- g) the Personal Cynicism Scale,
- h) the Political Cynicism Scale.

Since no experimental procedures could be employed to control effects of selected background characteristic variables, and since there were significant differences found among definite group mean scores within certain characteristic variables on various attitude scales, it was desired to remove statistically any bias introduced by these differences in selected background characteristic variables on attitude scale scores. Analyses of covariance were used as a statistical control to adjust for effects of uncontrolled variables. This statistical procedure permits the making of unbiased comparisons between training in political science groups' mean scores. Covariates were selected relevant background characteristic variables.

Training in political science groups' mean scores unadjusted and adjusted for effects of characteristic variables on eight attitude scales are presented in Table 9, page 101.

Two by ten, training in political science variable by selected characteristic variables, analyses of covariance were performed on all eight attitude scale scores; results of these analyses are presented in Table 10, page 102. Observed adjusted F-ratios associated with comparisons among group mean score differences on eight attitude scales did not exceed critical values required for any acceptable level of significance. These findings do not support the notion of statistically significant mean score differences between teachers with academic preparation in political science group and teachers with no academic preparation in political science group. Results seem to suggest that the statistically non-significant differences found between training in political science groups' mean scores on attitude scales can be attributed, within limits of error, to training in political science variable and to no other causal circumstances.

Since every one of the computed F-ratios, reported in Table 10, failed to exceed the minimum critical F-value (2.71), null hypothesis II was accepted.

TABLE 9

TRAINING IN POLITICAL SCIENCE VARIABLE' GROUP MEAN SCORES UNADJUSTED
AND (ADJUSTED) FOR EFFECTS OF CHARACTERISTIC VARIABLES
ON EIGHT ATTITUDE SCALES

Scales	With Training (X_i)	Without Training (X_j)	$X_i - X_j$	Probability under H_0
Gr.-Jo. Pol. Cyn.	5.014 (4.778)	5.218 (5.504)	.205 (.826)	n.s. (n.s.)
Fritz Pol. Cyn.	2.049 (2.024)	2.420 (2.450)	.372 (.426)	n.s. (n.s.)
Agger Pol. Cyn.	3.215 (3.125)	2.857 (2.966)	.358 (.159)	n.s. (n.s.)
Pol. Alie.	2.396 (2.344)	2.605 (2.667)	.209 (.323)	n.s. (n.s.)
Pol. Eff.	8.021 (8.074)	7.538 (7.474)	.483 (.600)	n.s. (n.s.)
Cit. Duty	9.250 (9.186)	9.360 (9.439)	.110 (.253)	n.s. (n.s.)
Per. Cyn.	2.174 (2.199)	2.252 (2.222)	.078 (.023)	n.s. (n.s.)
Pol. Cyn.	10.278 (9.927)	10.496 (10.920)	.218 (.993)	n.s. (n.s.)

TABLE 10

SUMMARY OF ANALYSES OF COVARIANCE OF TRAINING IN POLITICAL
SCIENCE VARIABLE GROUP MEAN SCORES FOR EIGHT ATTITUDE SCALES

Scales	Sources of Variation	df	MS	Adj. F	P
Gr.-Jo.	GRP	1	29.199		
Pol. Cyn.	WTH	251	23.458	1.245	.27
Fritz	GRP	1	10.021		
Pol. Cyn.	WTH	251	3.856	2.599	.11
Agger	GRP	1	1.409		
Pol. Cyn.	WTH	251	4.024	.35	.56
Pol. Alie.	GRP	1	5.782		
	WTH	251	3.912	1.478	.23
Pol. Eff.	GRP	1	19.928		
	WTH	251	7.398	2.694	.102
Cit. Duty	GRP	1	3.551		
	WTH	251	4.463	.796	.37
Per. Cyn.	GRP	1	.03		
	WTH	251	5.436	.006	.94
Pol. Cyn.	GRP	1	54.488		
	WTH	251	60.071	.907	.34

$$F_{.10}(1,251) = 2.71$$

$$F_{.05}(1,251) = 3.84$$

$$F_{.01}(1,251) = 6.63$$

Test of Hypothesis III - Predictors of Attitude Scale Scores

Null hypothesis III. No significant contribution to prediction of scores is made by knowing whether or not

1. a social studies teacher has formal academic training in political science or no formal academic training in political science,
2. a social studies teacher is a male or a female,
3. a social studies teacher is married, engaged or unmarried,
4. a social studies teacher is employed by school board A, B, or C,
5. a social studies teacher is teaching at junior or senior high school level,
6. a social studies teacher was born in Canada or outside Canada,
7. a social studies teacher was born in Western Canada, Central Canada, Maritime Provinces or outside Canada,
8. a social studies teacher has a liberal, conservative, socialist or independent political orientation,
9. a social studies teacher is up to 29 years of age, 30 to 44 years of age or 45 years of age and over,
10. a social studies teacher has 0 to 6, 7 to 13 or 14 and above years of teaching experience,
11. a social studies teacher voted, did not vote or was not eligible to vote in the last federal election (Canada, 1967),
12. a social studies teacher voted, did not vote or was not eligible to vote in the last provincial election (Alberta, 1967),
13. a social studies teacher voted, did not vote or was not eligible to vote in the last municipal election (Edmonton, 1966)

on

- a) the Grondin-Johnston Political Cynicism Scale,
- b) the Fritz Political Cynicism Scale,
- c) the Agger Political Cynicism Scale,
- d) the Political Alienation Scale,
- e) the Sense of Political Efficacy Scale,
- f) the Sense of Citizen Duty Scale,
- g) the Personal Cynicism Scale,
- h) the Political Cynicism Scale.

These associated hypotheses were proposed to determine which predictor variable or aggregate of predictor variables provide the best possible estimate of each of the criteria scales. The major statistical approach applied was a step-wise multiple linear regression which permitted the use of thirteen predictors. Data contributed by this statistical technique are shown in Tables 11, 12, 13 and 14.

In general, it was found that:

1. the variable sex was significant in predicting the Gr.-Jo. Pol. Cyn. Scale score at the .10 level;
2. the variable school board was significant in predicting the Fritz Pol. Cyn. Scale score at the .10 level;
3. the aggregate of variables sex, school board and age was significant in predicting the Agger Pol. Cyn. Scale score at the .001, .10 and .05 levels, respectively;
4. the variable school board was significant in predicting the Pol. Alie. Scale score at the .10 level;
5. none of the predictor variables were significant in predicting the Pol. Eff. Scale score;
6. the variable voting in the last municipal election was significant in predicting the Cit. Duty Scale score at the .05 level.

TABLE 11
UNBIASSED MEAN AND STANDARD DEVIATION OF TEACHERS'
BACKGROUND CHARACTERISTIC VARIABLES

Variables	Means	S. Deviations
Training in Political Science	.548	.499
Sex	1.384	.487
Marital Status	1.684	.93
School Board	1.57	.811
Level of School	1.281	.45
Country of Origin	1.217	.607
Canadian Regional Origin	1.3	1.2
Political Orientation	1.928	1.112
Age	1.567	.718
Teaching Experience	1.54	.745
Voting in Last Federal Election	1.297	.662
Voting in Last Provin. Election	1.25	.597
Voting in Last Local Election	1.369	.68

TABLE 12

INTERCORRELATION MATRIX BETWEEN BACKGROUND CHARACTERISTIC VARIABLES

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
Pol. Sc. Trai.		-.22	-.02	-.02	.23	-.08	.08	-.10	.04	.07	.18	-.07	-.11
Sex			.35	.16	-.11	.14	.16	-.21	-.04	.01	.20	.13	.17
Marital Status				.18	.04	.14	.07	-.04	-.15	-.17	.25	.10	.12
School Board					.01	.17	.20	-.26	.12	.09	.15	.04	.03
Level of School						.06	-.04	.02	.08	.07	-.06	-.02	.02
Country of Ori.							-.38	.09	.08	.08	.25	.24	.13
Can. Reg. Origin								-.15	-.01	.01	-.05	-.01	.02
Pol. Orientation									.04	-.04	.01	.03	.04
Age										.73	-.26	-.23	-.31
Teaching Experi.											-.25	-.23	-.29
Voting - Federal												.47	.43
Voting - Prov.													.59
Voting - Local													

$r \geq .12$ is significant at the .05 level for a two-tailed test.

$r \geq .16$ is significant at the .01 level for a two-tailed test.

$r \geq .20$ is significant at the .001 level for a two-tailed test.

TABLE 13

CORRELATION COEFFICIENTS AMONG CHARACTERISTIC VARIABLES AND ATTITUDE SCALES

Variables	Gr.-Jo. Pol. Cyn.	Fritz Pol. Cyn.	Agger Pol. Cyn.	Pol. Alie.	Pol. C Eff.	Cit. Duty	Per. Cyn.	Pol. Cyn.
Pol. Sc. Trai.	-.02	-.09	.09	-.05	.09	-.03	-.02	-.01
Sex	-.11	-.03	-.24	-.07	.05	-.01	-.02	-.14
Marital Status	-.01	-.03	-.11	.002	-.02	-.05	.05	-.04
School Board	-.10	-.11	-.16	-.11	-.06	-.04	-.03	-.13
Level of School	.04	-.07	.02	-.04	.02	.09	-.10	.02
Country of Ori.	.02	-.02	.003	.06	.02	-.10	.06	.01
Can. Reg. Origin	.02	.08	-.03	-.03	.01	.08	.06	.03
Pol. Orientation	.08	.11	.13	.05	-.03	.05	.05	.11
Age	-.5	-.03	-.14	-.04	-.01	.01	-.13	-.08
Teaching Experi.	-.04	-.01	-.07	.001	.02	.01	-.08	-.05
Voting - Federal	-.07	-.07	-.08	-.05	.04	-.09	.06	-.08
Voting - Prov.	-.01	-.07	-.06	-.004	-.01	-.14	.12	-.01
Voting - Local	.004	.003	.02	.01	-.02	-.14	.10	.01

$r \geq .12$ is significant at the .05 level for a two-tailed test.

$r \geq .16$ is significant at the .01 level for a two-tailed test.

TABLE 14

CHARACTERISTIC VARIABLES CONTRIBUTING AT THE .10 LEVEL OF
SIGNIFICANCE TO THE PREDICTION OF ATTITUDE SCALE SCORES

Scales	Predictor Variables	F value for variable	P level	Per Cent variance accounted for	Standard error of predicted scores
Gr.-Jo. Pol. Cyn.	sex	3.25	.07	1.25	4.83
Fritz Pol. Cyn.	school board	2.98	.09	1.13	1.96
Agger Pol. Cyn.	sex	16.30	.00	5.88	2.02
	school board	2.95	.09	1.04	2.00
	age	5.87	.02	2.08	2.00
	Total			8.99	
Pol. Alie.	school board	3.25	.07	1.23	1.97
Pol. Eff.	NIL				
Cit. Duty	Voting - local election	4.25	.04	1.60	2.17
Per. Cyn.	age	4.45	.04	1.68	2.33
Pol. Cyn.	age	5.43	.02	2.04	7.79
	school board	3.10	.08	1.15	7.79
	Total			3.19	

7. the variable age was significant in predicting the Per. Cyn. Scale score at the .05 level.

8. the aggregate of variables age and school board was significant in predicting the Pol. Cyn. Scale score at the .05 and .10 levels, respectively.

The above findings suggest that the remaining nine variables did not make statistically significant independent contributions to the prediction of criterion measures.

In the light of the above evidences, the investigator concluded that only predictor variable sex, school board, age and voting in last municipal election made statistically significant independent contributions to the prediction of definite criterion variables which were used to index respondents' degree of certain selected political and personal attitudes in the study. Null hypotheses 2a), 2c), 4b), 4c), 4d), 4h), 9c), 9g), 9h) and 13f) were, therefore, rejected, and the remaining associate null hypotheses were accepted.

Test of Hypothesis IV - Comparisons Among Attitude Scale Total Scores

Null hypothesis IV. Correlations among total scores obtained by secondary social studies teachers on

- a) the Grondin-Johnston Political Cynicism Scale,
- b) the Fritz Political Cynicism Scale,
- c) the Agger Political Cynicism Scale,
- d) the Political Alienation Scale,
- e) the Sense of Political Efficacy Scale,
- f) the Sense of Citizen Duty Scale,
- g) the Personal Cynicism Scale,
- h) the Political Cynicism Scale.

are not significantly different from zero, or $H_0 = 0$.

TABLE 15

CORRELATION MATRIX AMONG ATTITUDE SCALE TOTAL SCORES

Scales	1	2	3	4	5	6	7	8
Gr.-Jo. Pol. Cyn.		.68	.63	.71	-.42	-.33	.65	.96
Fritz Pol. Cyn.			.49	.58	-.27	-.25	.52	.80
Agger Pol. Cyn.				.59	-.29	-.24	.50	.78
Pol. Alie.					-.44	-.26	.51	.74
Pol. Eff.						.44	-.24	-.40
Cit. Duty							-.35	-.33
Per. Cyn.								.68
Pol. Cyn.								

TABLE 16

OBTAINED VALUES OF t IN COMPARISONS AMONG ATTITUDE SCALE
TOTAL SCORE CORRELATIONS

Scales	1	2	3	4	5	6	7	8
Gr.-Jo.								
Pol. Cyn.		14.78	13.00	16.38	-7.26	-5.65	13.96	52.65
Fritz								
Pol. Cyn.			9.03	11.53	-4.46	-4.24	10.69	21.47
Agger								
Pol. Cyn.				11.71	-4.95	-4.03	9.30	19.94
Pol. Alie.					-7.80	-4.41	9.45	17.93
Pol. Eff.						7.92	-3.99	-7.09
Cit. Duty							-5.98	-5.69
Per. Cyn.								14.78
Pol. Cyn.								

$t \geq 3.29$ is significant at the .001 level for a two-tailed test.

Tests of statistical significance using the distribution of t were utilized to verify the above null hypotheses. A matrix of Pearson product-moment correlation coefficients (Pearson r) is presented in Table 15, page 110, and shows degrees of relationship among attitude scale total scores. Results of appropriate t -tests are summarized in Table 16. All the resulting t values computed for among-total score correlations on all eight attitude scales, statistically, were highly

significant different from zero at the .001 level of confidence.

The expected high and positive correlations among the various measures of cynicism with each other and with measures of political alienation and personal cynicism were found. Similarly, the correlation between measures of political efficacy and citizen duty was in the expected direction. One of the more interesting findings is the negative relationships between measures of political cynicism, political alienation and personal cynicism with measures of political efficacy and citizen duty.

On the basis of this information, null hypothesis IV was rejected.

II. SUMMARY OF TEACHER QUESTIONNAIRE FINDINGS

In May, 1968, teachers involved in the survey were asked to complete a seven-part questionnaire. The questionnaire had twofold purposes: to obtain information on relevant background characteristic factors to be used as controlled variables in the study, and to solicit teachers academic qualification in political science and other social sciences. A summary of the information gathered from responses to Part I-IV of the questionnaire follows.

Part I - Political Science Courses

Table 17, page 113, shows the particular political science courses taken by male and female teachers who are teaching at either junior or senior high school level. While data of this type does not lend itself to rigorous statistical analysis, it can provide interesting

TABLE 17

POLITICAL SCIENCE COURSES TAKEN BY 263 SECONDARY SOCIAL STUDIES
TEACHERS: COURSES BY SEX AND LEVEL OF SCHOOL

Political Science Courses	Sex		Level of School		Teacher Total
	male	female	junior high	senior high	
No courses	59	60	99	20	119
One or more courses	103	41	90	54	144
Element of Political Science . .	69	26	61	34	95
Comparative Political Systems and Institutions	17	10	14	13	27
Political Thoughts	15	3	13	5	18
Techniques of Political Research	2	0	1	1	2
Government of Canada	46	22	42	26	68
Government of United States . .	10	10	15	5	20
Soviet Government and Politics	5	3	6	2	8
Government of United Kingdom	10	6	11	5	16
Government of Commonwealth Nations	5	2	3	4	7
Government of the Western European Democracies	7	6	7	6	13
Politics of Emergent Nations . .	3	1	1	3	4
Political Process in Asia . . .	2	0	1	1	2
International Politics	14	5	9	10	19
International Organizations . .	4	1	2	3	5
Political Theory, Behavior, Sociology, Psychology, Geography and Economics	15	7	13	9	22
Comparative Government	5	6	8	3	11
Parties and Pressure Groups . .	3	2	3	2	5
Federalism	2	1	1	2	3
Public Administration	6	0	4	2	6
Municipal, State and Provincial Government	3	4	5	2	7

contrasts. For example, of the 144 teachers who had some formal university political science, ninety-five took the political science survey course, while sixty-eight took at least one of their political science courses in Government of Canada. Impressing though the data are in showing that more than half of the teachers surveyed have at least one or more university political science courses, perhaps, this information may be by no means precise. For instance, since the Department of Political Science at the University of Alberta did not become a separate independent department until 1964, it is conceivable that, perchance, courses such as Government of Canada and Political Thoughts which were taken by teachers at the University of Alberta before 1964 were in fact history and philosophy courses rather than bona fide political science courses. Hence, we must take note of such important qualifications, otherwise, inspection of Table 17 could lead one to conclude hastily that, generally, secondary social studies teachers appear to be adequately prepared in formal knowledge of political science concepts.

Part II - Countries Where Social Studies Teachers Received Their University Education

Social studies teachers examined showed eight countries where they were educated: Canada, United States, England, Ireland, Germany, Soviet Union, Italy and Australia. Table 18 shows in what countries secondary social studies teachers took their university political science education--if any. Canada was divided into Alberta and the "Rest of Canada." Where teachers gave two or more universities or

TABLE 18

COUNTRIES WHERE 263 SECONDARY SOCIAL STUDIES TEACHERS
RECEIVED THEIR POLITICAL SCIENCE EDUCATION

Countries	Number of Political Science Courses											Teacher Total
	0	1	2	3	4	5	6	7	8	9	10	
Alberta	53	26	12	15	6	1	0	0	0	0	0	113
Rest of Canada	20	21	14	13	11	2	1	1	1	0	1	85
United States	3	2	1	2	0	2	0	0	1	0	0	11
England	3	0	0	0	0	0	0	0	0	0	0	3
Ireland	0	0	1	0	0	0	0	0	0	0	0	1
Germany	0	0	1	0	0	1	0	0	0	0	0	2
Estonia, USSR	1	0	0	0	0	0	0	0	0	0	0	1
Italy	0	0	0	0	0	0	1	0	0	0	0	1
Australia	2	0	0	0	0	0	0	0	0	0	0	2
Not Given	37	3	0	2	0	0	1	1	0	0	0	44
TOTAL	119	52	29	32	17	6	3	2	2	0	1	263

TABLE 19

GRADUATE EDUCATION OF 263 SECONDARY SOCIAL STUDIES TEACHERS

Graduate Education	Number of Political Science Courses											Teacher Total
	0	1	2	3	4	5	6	7	8	9	10	
B.A. Honour Political Sc. .	-	-	-	-	-	-	-	-	-	-	-	0
B.A. Major Political Sc. ..	-	-	-	-	-	-	2	1	-	-	1	4
B.A. Pol. Sc. plus B. Ed. Social Studies	-	-	-	-	2	-	-	-	1	-	-	3
B. Ed. Major Soc. Studies .	24	18	7	9	4	2	1	-	-	-	-	65
B. Ed. Others	14	2	1	4	1	-	-	-	-	-	-	22
B.A. Others	17	11	4	7	7	-	-	-	-	-	-	46
B. Ed. Soc. Studies plus B.A.	18	7	8	5	2	1	-	-	1	-	-	42
B. Ed. Others plus B.A. ...	7	2	2	2	-	1	-	-	-	-	-	14
B. Physical Ed.	2	1	-	1	-	1	-	-	-	-	-	5
B. Physical Ed. plus B. Ed. Social Studies	-	-	1	1	-	-	-	-	-	-	-	2
B. Physical Ed. plus B. Ed. Others	1	-	-	-	1	-	-	-	-	-	-	2
B. Science	2	1	-	-	-	-	-	-	-	-	-	3
B. Sc. plus B. Ed.	1	-	1	-	-	-	-	-	-	-	-	2
B. Sc. H. Ec.	1	-	-	-	-	-	-	-	-	-	-	1
B. Sc. H. Ec. plus B. Ed. .	1	-	-	-	-	-	-	-	-	-	-	1
B. Com. and Bus. Adm.	1	2	1	-	-	-	-	-	-	-	-	4
No degree	5	1	1	1	-	-	-	-	-	-	-	8
Not Given	26	6	3	2	-	1	-	1	-	-	-	39
TOTAL	119	51	30	32	17	6	3	2	2	0	1	263

colleges, the first institution mentioned by respective teacher dictated the country of origin.

Although it is virtually impossible to rate the relationship of country and emphasis placed on political science education in that country's universities, it is nevertheless natural to wonder how the political science course backgrounds differ with respect to country of origin for each individual teacher. Inspection of Table 18, page 115, would lead one to conclude that Albertan social studies teachers have generally comparable training in political science as those who have obtained their formal university education in the "Rest of Canada." Some of the "Rest of Canada" teachers, however, did have a greater number of formal political science courses in their backgrounds than any of the Albertan teachers had, but whether this eventuality is significant or not is a matter for conjecture.

Part III - Graduate and Post Graduate Education

Results of Part IIIa, as reported in Table 19, page 116, show that seven of the 263 teachers had a bachelor degree in political science, and that three of those seven had also a bachelor degree in education, major social studies; no honour degree. Of the same seven teachers, one had pursued post graduate education to obtain a master's degree in political science. None had a doctoral degree. Table 20, page 118, shows the results of Part IIIb.

TABLE 20

POST GRADUATE EDUCATION TAKEN BY 263 SECONDARY SOCIAL
STUDIES TEACHERS

Post-Graduate Education	Number of Political Science Courses										Teacher	
	0	1	2	3	4	5	6	7	8	9	10	Total
Ph. D. Pol. Sc.												0
MA. Pol. Sc.	0	0	0	0	0	0	0	0	1	0	0	1
M. Ed.	2	1	2	3	1	1	0	0	0	0	0	10
MA. (others)	2	0	2	1	1	1	1	0	0	0	0	8
Diploma	5	3	2	2	1	0	0	0	0	0	0	13
M. Sc.	0	0	0	1	0	0	0	0	0	0	0	1
No	97	46	23	24	14	4	2	1	1	0	1	213
Not Given	13	2	0	1	0	0	0	1	0	0	0	17
Total	119	52	29	32	17	6	3	2	2	0	1	263

TABLE 21
SOCIAL SCIENCE COURSES TAKEN BY 263 SECONDARY SOCIAL
STUDIES TEACHERS

Social Science Courses	Teacher with one to ten courses											Not Given	
	0	1	2	3	4	5	6	7	8	9	10		11+
Political Science	119	52	29	32	17	6	3	2	2	0	1	0	0
History	21	29	44	34	40	30	21	8	7	2	4	3	20
Geography	99	76	39	13	6	3	3	0	1	1	0	2	20
Psychology	93	75	33	19	7	8	1	2	2	1	1	1	20
Anthropology	207	28	7	1	0	0	0	0	0	0	0	0	20
Sociology	98	82	31	16	8	4	0	2	1	1	0	0	20
Economics	151	58	17	7	6	1	2	1	0	0	0	0	20
Philosophy	44	71	87	19	6	6	7	1	1	0	1	0	20
Classics	170	41	17	5	5	2	1	0	1	0	1	0	20
Criminology	227	12	3	1	0	0	0	0	0	0	0	0	20
Theology	199	16	10	4	7	2	2	0	0	0	0	3	20

Part IV - Social Science Courses

Table 21, page 119, displays the social science courses taken by 263 secondary social studies teachers. One hundred and nineteen of them took no formal political science courses. One hundred and forty-four took one or more courses in political science. Out of these one hundred and forty-four, fifty-two took only one course, twenty-nine took two courses and a further thirty-two had taken three courses.

The social science listed by most social studies teachers was history. Two hundred and twenty-two out of two hundred and forty-three had taken at least one history course. In contrast to other social sciences, political science fared mildly well-to-do, being preceded by history, philosophy, psychology, sociology and geography in popularity.

III. CHAPTER SUMMARY

The present chapter presented, first, results of statistical analyses of data and, second, a summary of the information gathered from teachers' responses to Parts I to IV of the questionnaire. Although data listed in the latter section of the chapter did not lend themselves to rigorous statistical analyses, they did provide interesting contrasts.

In the first section of the chapter, statistical analyses showed that both groups, those with and those without formal training in political science, did not differ significantly in their mean scores obtained on either of the eight attitude scales. In light of these evidences, both null hypotheses I and II were accepted.

The technique of multiple correlation, which was utilized to test null hypothesis III, permitted the identification of sex, school board, age and voting in the last municipal election variables as the only predictors which made statistically significant independent contributions to the prediction of definite attitude scale scores or criterion measures. On the basis of these findings, a scant number of sub-hypotheses of null hypothesis III were rejected.

Testing significance of total score correlations among eight attitude scales was achieved by using the distribution of t . Since all the computed t values were highly significant at the .001 level of confidence, null hypothesis IV was, therefore, rejected.

Data concerning selected relevant background characteristic variable groups' mean score differences on eight attitude scales were treated for statistical significance. It was found that differences among marital status, level of school, country of origin, Canadian regional origin, years of teaching experience and voting in last provincial election variables' group mean scores were not statistically significant.

There were evidences, although rather tenuous and inconsistent, that, here and there, statistically significant differences occur among group mean scores of sex, school system, school board, political orientation, age and voting in last federal and municipal elections variables on some of the eight attitude scales which had been incorporated in a battery of political attitude tests.

CHAPTER V

SUMMARY OF THE STUDY, CONCLUSIONS AND RECOMMENDATIONS

I. SUMMARY OF THE STUDY

This study, exploratory in character, dealt mainly with two of the factors involved in the teaching of political science in the social studies in secondary schools of two large urban centres in Alberta. These factors were university political science courses taken by secondary social studies teachers and certain selected political and personal attitudes held by these teachers. This study had three main purposes. The first was to examine formal academic qualifications of a group of secondary social studies teachers to ascertain if they were adequately trained in political science. The second was to quantify objectively, with applicable attitude scales, teachers' feelings of political cynicism, political alienation, political efficacy, citizen duty and personal cynicism. Thirdly, this study attempted to appraise the effect of formal academic training in political science, or its absence, upon the above mentioned political and personal attitudes. In addition to the three main purposes specified, a subsidiary aim of the study was to identify which of the selected relevant background characteristic variables either by themselves or as aggregates were significant predictor variables of an attitude criterion measure, designedly, to give direction that future research might take. Accordingly, the investigation was so designed that data could be gathered and analyzed to answer the above purposes.

Null hypotheses¹ were drafted from questions² for which the study was designed. Acceptability of each of the null hypotheses associated with unadjusted attitude scale mean scores between training in political science groups and among characteristic variable groups was tested by carrying out one-way analyses of variance, and by using the Scheffe' S-method. Acceptability of each of the null hypotheses associated with adjusted group mean scores on eight attitude scales between training in political science groups was tested by carrying out one-way analyses of covariance, using characteristic variables as covariates. Acceptability of each of the null hypotheses associated with the identification of significant predictor variables was examined by use of step-wise multiple linear regression procedures. Finally, acceptability of each of the null hypotheses associated with testing the significance of correlation coefficients among eight attitude scale total scores was analyzed by using the distribution of t statistic.

In addition to statistical evidences and by means of a questionnaire, evaluation of academic qualification in political science and in other social sciences was possible from information obtained from teachers involved in the investigation. Responses to Part I to IV of the questionnaire produced the following findings. Two hundred and sixty-three out of four hundred and ninety-two (53.46 per cent) returned a

¹Chapter I, pp. 14-5.

²Chapter I, pp. 6-7.

completed questionnaire concerning their political science academic qualification; 119 or 44 per cent of the teachers who replied had no formal academic training in political science. Merely seven respondents, or 2.66 per cent, had a degree in political science.

In the statistical analyses carried out in the study, differences between and among group mean scores were considered to be statistically significant only if the probability of observing such differences as a result of sampling error was .10 or less. Although differences were found in group mean attitude scale scores when categorized by those teachers with some training in political science versus those teachers with no training in political science, no significant differences, statistically admissible, were obtained in these variations. Not only were these relations not significant for unadjusted group mean scores, but also for contrasts between these group mean scores adjusted for effects of selected relevant background characteristic variables on all eight attitude scales. Null hypotheses I and II³ were, therefore, statistically substantiated in whole.

Since it was possible that any one of the selected relevant background characteristic variables of the study, or even all of them, could create significant effects on attitude scale scores, each characteristic variable provided, therefore, a plausible rival hypothesis to the main hypothesis that academic training in political science, or its absence, has some effects on attitude scale scores. This was a subsidiary

³Chapter I, p. 14.

problem investigated in the study. To explore characteristic variables underlying political attitudes, and to test the significance of differences among group mean scores, analyses of variance were applied to empirical data provided by eight attitude scales. There were differences among all characteristic variables' group mean scores obtained on eight attitude scales. There were, however, no statistical evidences observed in these analyses to substantiate that those differences found among group mean scores of marital status, level of school, country of origin, Canadian regional origin, years of teaching experience and voting in last provincial election variables were significant. There were, nevertheless, here and there, statistical suggestions that certain particular differences among group mean scores of sex, school system, school board, political orientation, age, voting in last federal and municipal elections variables were significant.

With the use of multiple regression procedures, relative independent contributions of each characteristic variable and training in political science variable as predictor variables of attitude scale scores were obtained. The following predictor variables indicated statistically significant independent contribution to the prediction of certain distinctive attitude scale scores:

1. sex variable to the prediction of the Grondin-Johnston Political Cynicism Scale and the Agger Political Cynicism Scale scores,
2. school board variable to the prediction of the Fritz Political Cynicism Scale, the Agger Political Cynicism Scale and the Political Cynicism Scale scores,

3. age variable to the prediction of the Agger Political Cynicism Scale, the Personal Cynicism Scale and the Political Cynicism Scale scores,

4. voting in last municipal election variable to the prediction of the Sense of Citizen Duty Scale score.

The significance of intercorrelations among attitude scale total scores obtained by 263 secondary social studies teachers was tested by employing appropriate t-tests. Since all computed t values reveal that attitude scale total score correlations were significant at the .001 level, null hypothesis IV was rejected in its entirety.

II. CONCLUSIONS

On the basis of results of statistical analyses and procedures carried out and after consideration of teachers' responses to the questionnaire, the following conclusions were derived.

1. As noted in the summary of Chapter II, studies similar to the one presently being reported have argued that the academic training in the discipline of political science of secondary social studies teachers is inadequate. It has been found in the present study that such conclusion would seem warranted when applied to the sample of secondary social studies teachers investigated in the study. Most high school social studies teachers have taken some university courses in political science; however, few have advanced beyond introductory courses.

Teachers with an undergraduate degree, major in political science, were particularly rare. Particularly disturbing in the present study is the lack of evidence that either the academic preparation of social studies teachers in political science has of late improved significantly, or their interest and enrolment in political science courses at university are, or will be, increasing. In fact, the enrolment trend appears to be in the opposite direction. At present, if circumstances were the same for all secondary social studies teachers of Alberta, then, the academic political science preparation of secondary social studies teachers must be viewed as generally inadequate.

2. Assuming that the attitude scales are valid measures of political cynicism, political alienation, political efficacy, citizen duty and personal cynicism, it would seem that secondary social studies teachers scored consistently lower on scales used to assess respondents' feelings of political cynicism, political alienation and personal cynicism than on scales used to quantify feelings of sense of political efficacy and citizen duty. We are able to state with a fair degree of certainty that secondary social studies teachers investigated in the present study were more likely to hold positive feelings rather than negative feelings about the political processes. As this and other studies have shown, the better educated are more apt to develop positive feelings about the political world than negative feelings.

3. The acceptance of null hypotheses I and II leads us to conclude that training in political science, or its absence, has no significant impact upon social studies teachers' own attitudes toward

politics. It would be presumptuous, of course, to generalize from the data presented here to the whole population of secondary social studies teachers of Alberta. However, it may be possible to offer these data as suggesting that, especially within high educational level, persons with formal knowledge of politics are as likely to show feelings of political cynicism, political alienation, political efficacy, citizen duty and personal cynicism as persons with no formal knowledge of politics.

4. The following significant conclusions are based on results of one-way analyses of variance carried out in the investigation of the subsidiary problem of the study:

- a) Male teachers were more likely than female teachers to have feelings of cynicism about politics.
- b) Teachers who are teaching in a public school system as a whole tended to feel more cynical about, and alienated from, politics than teachers who are teaching in a separate school system.
- c) Teachers who are employed by school board A were more inclined to show feelings of political cynicism than teachers who are employed by either school board B or C.
- d) Dividing teachers by political orientation groups with which they identify themselves, we found that conservatives tended to display more feelings of political cynicism than either liberals, socialists or independents.
- e) Younger teachers were more politically and personally cynical than elder teachers. This finding is disputed by Robert Agger, Marshall Goldstein and Stanley Pearl's study which showed that aging tended to produce political and personal cynicism.⁴

⁴Robert E. Agger, Marshall N. Goldstein and Stanley A. Pearl, "Political Cynicism: Measurement and Meaning," The Journal of Politics, Vol. 23, (August, 1961), pp. 488-493.

- g) There was not much empirical evidence in the present study to support the prediction that feelings of political efficacy were related to political participation, that is, to voting behavior.
- h) Secondary social studies teachers involved in this investigation disclosed hardly any age or sex differences in likelihood of developing a sense of political efficacy and a sense of duty to participate in political activities.

III. RECOMMENDATIONS

The investigator makes the following recommendations:

1. The prior training of Albertan secondary social studies teachers in political science should receive greater attention than it has in the past from political scientists and educators. Definite cooperative efforts, therefore, will be required of university professors of political science and of secondary education to gear particular political science courses to interests and demands of secondary social studies teachers of Alberta.
2. A study should be made to analyze the political science content of social studies instruction and of textbooks for the social studies courses which are taught in junior and senior high schools of Alberta.
3. Also in order is a longitudinal study of the relationship between selected political attitudes of high school students and similar attitudes of their social studies teachers.
4. The content and quality of the political science teaching in secondary schools of Alberta should be examined.

5. The investigation reported herein should be replicated with tighter experimental control. Personal-interviews rather than a mail questionnaire survey might well be employed in gathering, perhaps, more reliable data to be used for statistical analyses. It would be more economical and practical to consider solely educational level dichotomized by number of courses in political science, school system, religious preference, sex, age and voting in either the last federal or municipal election as well as socioeconomic status categorized by yearly salary. Finally, since moderate departures from the hypothesis of homogeneity of variance were observed in the present study, non-parametric tests such as the Kruskal-Wallis one-way analysis of variance by ranks⁵ rather than parametric methods could be appropriately used to test certain null hypotheses.

6. While a study such as the one described in this report serves the purpose of providing some knowledge about the formal political science qualification of urban secondary social studies teachers, there is much need for studies that would evaluate the formal political science qualification of rural secondary social studies teachers. There is also need for investigation that would explore selected political attitudes of the latter group of teachers. There is a further need for an overall comparison of formal political science qualification and of selected political attitudes between urban and rural secondary social studies

⁵George A. Ferguson, Statistical Analysis in Psychology and Education (second edition; New York: McGraw-Hill Book Company, 1966), pp. 362-363.

teachers. There is need, for instance, for detailed investigations of the effectiveness of social studies teachers for teaching political science understandings, concepts and principles. Does the political science education that a secondary social studies teacher possesses make a difference in the number of political science concepts taught? Is there a relationship between the success of secondary schools' students on tests of political science cognitions and the formal political science preparation, or its absence, of their social studies teachers? Can secondary social studies teachers select pertinent curriculum material from the discipline of political science for their students without formal academic preparation in depth and breadth in that discipline? Finally, can secondary social studies teachers communicate to their students the structure of political science without academic training in that social science discipline? There are many such unanswered questions that deserve detailed study.

It is hoped that, as more studies in the area of social studies teachers' pre-service training in the social sciences are conducted, the information from such investigations will become generally available to those who make decisions about formal academic requirements in social science disciplines for future social studies teachers. Indeed, if the quality of social studies instructions in secondary schools of Alberta is to progress, then, social studies teacher-training universities need to give serious consideration to the adequacy of academic preparation in political science and other social sciences that they are providing to future secondary social studies teachers.

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APPENDIX A
CORRESPONDENCE

COPY OF LETTER SENT TO SCHOOL SUPERINTENDENTS

10919 - 76 Avenue
Edmonton, Alberta
March 20, 1968

Dear Sir:

I am preparing a thesis, "A Descriptive Survey of Academic Preparation in Political Science and Selected Political Attitudes of Urban Secondary Social Studies Teachers of Alberta, 1968," for an M. Ed. degree at the University of Alberta.

Your help is requested. Since I propose to obtain the educational qualifications of social studies teachers with the use of a mailed questionnaire, would you please assist me by giving me the name and address of all teachers who teach the social studies at the junior and senior high school levels in your school division.

I have taken the liberty of enclosing a copy of the proposal for thesis and of the questionnaire to be sent to teachers. The battery of political attitude tests is not available at the moment, as a pilot study is presently being conducted at the University of Alberta to determine its final form.

Thanking you in anticipation of your kind assistance.

Yours truly,

Condé R. Grondin

COPY OF LETTER SENT TO SCHOOL PRINCIPALS

10719 - 76 Avenue
Edmonton, Alberta
April 24, 1968

Dear School Principal:

Could you please distribute these questionnaires and batteries of political attitude tests to the secondary social studies teachers who are indicated on the attached slips.

Permission has been obtained to contact these teachers from your superintendent.

Your co-operation is greatly appreciated and I thank you for your kind assistance.

Yours truly,

Condé R. Grondin

COPY OF LETTER SENT TO SOCIAL STUDIES TEACHERS

10719 - 76 Avenue
Edmonton, Alberta
April 21, 1968

Dear Social Studies Teachers:

As part requirement for an M. Ed. degree, I am conducting a survey of the amount of academic preparation that secondary social studies teachers have in political science. To do this I require some knowledge of the formal political science qualification of social studies teachers.

In addition, I am attempting to discover if any relationship exists between the academic preparation in political science of social studies teachers and some selected general political attitudes that they may entertain about, or toward, the political processes.

Would you please complete the enclosed questionnaire and battery of political attitude tests, returning them in the envelope provided. Realizing that this is a very busy month of the year for you, nevertheless, it is hoped that, at the most, fifteen minutes of your time could be spared for this endeavor.

The information in the questionnaire and the scores on the political attitude tests will be strictly confidential, being used only for the purpose of this study. I am interested in statistics, not particular individuals, in this research project. The results of this study, when completed, will be released to your superintendent.

Your co-operation will be greatly appreciated, and I am thanking you for your kind assistance.

Yours truly,

Condé R. Grondin

APPENDIX B

QUESTIONNAIRE

and

FINAL VERSION OF THE BATTERY OF POLITICAL ATTITUDE TESTS

COPY OF QUESTIONNAIRE SENT TO SOCIAL STUDIES TEACHERS

QUESTIONNAIRE

I. Please indicate below the number of courses received in political science at college, or university.

	No. of courses
Elements of Political Science (Introduction)	_____
Comparative Political Systems and Institutions	_____
Political Thoughts	_____
Techniques of Political Research	_____
Government of Canada	_____
Government of the United States of America	_____
Soviet Government and Politics	_____
Government of the United Kingdom	_____
Government of the Commonwealth Nations	_____
Government of the Western European Democracies	_____
Politics of Emergent Nations	_____
Political Process in Asia	_____
International Organizations, Relations and World Law	_____
Political Theory, Behavior, Sociology, Psychology, Geography and Economy	_____
Comparative Government	_____
Parties and Pressure Groups	_____
Federalism	_____

Public Administration _____

Municipal and State, or Provincial, Government _____

Others (Please specify name of course, or courses, with number received)

II. University or universities at which you received your education.

III. Please check the following graduate and post-graduate education you have--if any.

Graduate

B. A. Political Science _____

B. A. Honors in Political Science _____

B. Ed. Social Studies Major _____

B. A. (Please specify major) _____

B. Ed. (Please specify major) _____

B. Sc. (Please specify major) _____

Others (Please specify) _____

Post-Graduate

M. A. Political Science _____

Ph. D. Political Science _____

Other (Please specify) _____

- IV. Please give the number of social science courses you have taken other than political science at university or college level.

	No. of Courses		No. of courses
History	_____	Philosophy	_____
Geography	_____	Economics	_____
Psychology	_____	Classic	_____
Anthropology	_____	Criminology	_____
Sociology	_____	Religion (Theology)	_____
Others (Please specify with number of course received)			

- V. Please place a check mark (✓) next to the facts that pertain to you.

1. Sex: male _____
female _____

2. Marital Status: married _____
engaged _____
single _____

3. School Board by which you are employed: Public . _____
Separate _____

4. Level of School at which you are teaching: Jr. High _____
Sr. High _____

COPY OF THE BATTERY OF POLITICAL ATTITUDE TESTS SENT
TO SOCIAL STUDIES TEACHERS

BATTERY OF POLITICAL ATTITUDE TESTS

DIRECTIONS

In this battery of tests, there are a number of statements dealing with practical situations. In each case you are to decide what viewpoint you actually hold. What are your feelings toward each situation? Do you agree or disagree with the statement?

Do not argue with yourself about a statement. Answer quickly and frankly.

Judge each statement as a general rule. Do not think too much about special exceptions.

This battery of tests is not a matter of right or wrong answer. It is not an examination of how much you know. It is not an intelligence test. IT IS AN INVENTORY OF ATTITUDES. Since you are entitled to hold any attitude or feeling which you wish, indicate exactly how you feel.

CAUTION: Do not respond as though you were trying to make a good impression. Respond as though no one would ever see your paper. Answer frankly is the only way you can find out about yourself.

By means of the scale below, try to show the strength of your feelings toward each statement.

SCALE FOR RESPONSES

- | | |
|--|---|
| A - <u>Definitely acceptable</u> | I agree most whole-heartedly with the statement. |
| a - <u>Fairly acceptable</u> | In general, I agree with the statement, but not too strongly. |
| d - <u>Mild disagreement</u> | I am inclined not to agree with the statement. In general, I think I would reject it. |
| D - <u>Definitely rejected</u> | I absolutely do not agree with the statement. |

(continue on next page)

REMEMBER: Your responses should indicate your own personal viewpoint.

ANSWER EVERY ITEM ----- DO NOT OMIT ANY

Draw a circle around the letter you choose as your answer. If you need to, look again at the "Scale for Responses" on the preceding page.

1. I don't think public officials care much what people like me think. A a d D
2. I like to participate in political activities A a d D
3. What happens in the government will happen no matter what people do. It is like the weather, there is nothing people can do about it. A a d D
4. If they so desire, citizens have many chances to say what they think about running the government. A a d D
5. Elected officials become tools of special interests, no matter what. A a d D
6. In this "game" called life, it is best to do the other fellow in before he does you in. A a d D
7. It is difficult for me to imagine an honest politician. He may mean very well when he starts out, but it is probable that he will not stay that way. A a d D
8. Too often people get a raw deal from their local governments. A a d D
9. All this control of business by the government is just so politicians can show their power. A a d D
10. If a person has enough money, he can get the government to do almost anything he wants. A a d D
11. I would say that more than 90% of the people would not hesitate to be more or less "crooked" if they were absolutely certain that no one would find out about it. A a d D

(continue on next page)

12. Most political leaders would tell lies if they
could benefit by doing so. A a d D
13. The biggest difference between most criminals and
politicians is that criminals are stupid enough to
get caught. A a d D
14. In most Canadian cities, a person is better off if
he doesn't trust city officials. A a d D
15. The way people vote is one of the primary means of
deciding how things are run in this country. A a d D
16. "Every man for himself and the devil take the
hindmost" sounds like good sense to me. A a d D
17. Voting is nothing but a nuisance. A a d D
18. I think it is very near the truth to say that an
honest man will not run for public office. A a d D
19. If a politician looks after the wishes of the more
influential people, then he doesn't really need to
worry about the average citizen to stay in office. A a d D
20. Politics is a racket. To call it a form of
"legalized crookedness" would be a pretty good
description. A a d D
21. Generally speaking, it's a waste of time to take
part in a political campaign. A a d D
22. Thoughtfulness of others is the "bunk." Sooner
or later you will be taken advantage of. A a d D
23. Although elections in Canada are democratic, the
people do not have as much voice in the government
as they think they do. A a d D
24. If people know what was really going on in high
places, they would blow the lid off things. A a d D
25. Under the "rules of the game" in politics, it is
better to do the other fellow in before he does
you in. A a d D

(continue on next page)

26. Politicians spend most of their time getting
re-elected or re-appointed. A a d D
27. Politicians represent the general interest more
frequently than they represent special interests. A a d D
28. Many politicians believe that there is a sucker
born every minute. A a d D
29. It is not important to vote when you know your
party does not have a chance to win. A a d D
30. I would say that perhaps as much as half of our
money finds its way into the pockets of grafters. A a d D
31. In order to be nominated, most candidates for
political offices have to make basic compromises
and undesirable commitments. A a d D
32. You can get yourself elected to almost any office
if you have enough money. A a d D
33. Local politicians usually worry a fair amount
about the interests of their constituents. A a d D
34. Money is the most important factor influencing
public policies. A a d D
35. Ninety-nine per cent of the big business
corporations will use bribery, lawyers' tricks
and everything else to make money. A a d D
36. It does not matter which party wins the elections,
the interests of the little man do not count. A a d D
37. So many other people vote in the national elections
that it does not matter to me whether I vote or not. .. A a d D
38. All you need is the "gift of gab" in order to be
elected to an office in Canada. A a d D
39. Only a fool would ever vote to increase his own
taxes. A a d D
40. To succeed in politics, it is primarily a matter
of "who you know," not what you stand for. A a d D

(continue on next page)

41. Voting is the only way people like me can have
any say how the government runs things. A a d D
42. People are very frequently manipulated by
politicians. A a d D
43. The average big industrial corporation certainly
does "fleece" the public--just a bunch of "crooks." ... A a d D
44. For the most part, our laws are made to protect
the rich. A a d D
45. No matter what form of government we have, or who
we elect to run it, there is always going to be a
lot of corruption involved in it. A a d D
46. You will have a lot less grief if you will look
upon every agent or salesman as a crook. A a d D
47. If people are stupid enough to place their faith
in politicians, then, they deserve it when they
"fleece" them later. A a d D
48. Most city officials are responsible pretty much
to the wishes of the citizens. A a d D
49. I think that politicians are sincerely interested
in the public's welfare more than in themselves. A a d D
50. Most of the politicians in our government are just
political hacks, or "cronies" of someone higher up
in the government. A a d D
51. Human nature is such that if you "give a man an
inch," he will "take a mile." A a d D
52. Politics in Canada is really controlled by a rather
small group of powerful politicians who do pretty much
what they want. A a d D
53. Most people who like to "play politics" are just
trying to promote their own private interests. A a d D
54. Sometimes politics and government seem so complicated
that a person like me cannot really understand what
is going on. A a d D

(continue on the next page)

55. Most millionaires are just clever crooks who have
taken advantage of the "breaks." A a d D
56. Anyone who believes in "humanity" just lacks a
little by way of understanding how the world is run. .. A a d D
57. From a moral standpoint, most governments are
rotten through and through. A a d D
58. People like me do not have a say about what the
government does. A a d D
59. Every man in public office has a good possibility
of becoming a "crook." A a d D
60. A good many local elections are not important
enough to bother with. A a d D
61. A large number of city and country politicians
are political hacks. A a d D
62. People who think that politicians really mean
what they say are just naive fools. A a d D
63. If a person does not care how an election comes
out, he should not vote in it. A a d D
64. Local officials lose touch with the people
who elected them. A a d D
65. It is pretty good policy to "trust a politician
as far as could throw a bull by the tail." A a d D

THANK YOU

NAME _____
Last First Middle

FACULTY
OF
SCHOOL _____

AGE _____ YEAR _____
Male Female DATE _____
Day Month Year

- A - Definitely Acceptable
a - Fairly Acceptable
d - Mild Disagreement
D - Definitely Rejected

Indicate answer by placing a
mark between the guidelines
as shown in the example.
Use HB pencil. Don't make
marks longer than guidelines.

Example

I. D. NUMBER

0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9
0 1 2 3 4 5 6 7 8 9

1. A a d D 45. D d a A
2. A a d D 46. D d a A
3. A a d D 47. D d a A
4. D d a A 48. A a d D
5. D d a A 49. A a d D
6. D d a A 50. D d a A
7. D d a A 51. D d a A
8. D d a A 52. D d a A
9. D d a A 53. D d a A
10. D d a A 54. A a d D
11. D d a A 55. D d a A
12. D d a A 56. D d a A
13. D d a A 57. D d a A
14. D d a A 58. A a d D
15. D d a A 59. D d a A
16. D d a A 60. A a d D
17. A a d D 61. D d a A
18. D d a A 62. D d a A
19. D d a A 63. A a d D
20. D d a A 64. D d a A
21. D d a A 65. D d a A
22. D d a A
23. A a d D
24. D d a A
25. D d a A
26. D d a A
27. A a d D
28. D d a A
29. A a d D
30. D d a A
31. D d a A
32. D d a A
33. A a d D
34. D d a A
35. D d a A
36. D d a A
37. A a d D
38. D d a A
39. A a d D
40. D d a A
41. A a d D
42. D d a A
43. D d a A
44. D d a A

APPENDIX C

LIST OF ITEMS FOR SINGULAR SCALE OF THE BATTERY OF POLITICAL ATTITUDE TESTS

LIST OF ITEMS FOR SINGULAR SCALE OF THE SHORT-FORM

BATTERY OF POLITICAL ATTITUDE TESTS

The columns are to be interpreted as follows:

- Column 1 shows correlations of item score to scale total score computed for study group.
- Column 2 shows correlations of item score to scale total score computed for pilot study group.
- Column 3 shows serial numbers of the items in the Battery of Political Attitude Tests.
- Column 5-8 show Scale for Responses given to provide weight-values of 0, 0, 1, 2, to the items. Row 1 under the Scale for Responses lists the number of respondents selecting each category. Row 2 shows the per cent of respondents selecting each category.

GRONDIN-JOHNSTON TEST OF POLITICAL CYNICISM

.52	.56	(8)	Too often people get a raw deal from their local government. ...	D 59 22.43	d 127 48.29	a 67 25.48	A 10 3.8
.58	.58	(10)	If a person has enough money, he can get the government to do almost anything he wants.	D 63 23.95	d 111 42.21	a 81 30.8	A 8 3.04
.70	.58	(12)	Most political leaders would tell lies if they could benefit by doing so.	D 56 21.29	d 119 45.25	a 69 26.24	A 19 7.22
.55	.59	(13)	The biggest difference between most criminals and politicians is that criminals are stupid enough to get caught.	D 118 68.82	d 66 25.1	a 13 4.94	A 3 1.14
.48	.61	(14)	In most Canadian cities, a person is better off if he doesn't trust city officials.	D 131 49.81	d 106 40.3	a 22 8.37	A 4 1.52

.47	.56	(19)	If a politician looks after the wishes of the more influential people, then he doesn't really need to worry about the average citizen to stay in office.	D	d	a	A
				82	100	71	10
				31.18	32.02	27.	3.8
.24	.53	(21)	Generally speaking, it's a waste of time to take part in a political campaign.	D	d	a	A
				134	97	29	3
				50.95	36.88	11.03	1.14
.52	.50	(25)	Under the "rules of the game" in politics, it's better to do the fellow in before he does you in.	D	d	a	A
				105	108	45	5
				39.92	41.06	17.11	1.9
.52	.55	(28)	Many politicians believe that there's a sucker born every minute.	D	d	a	A
				89	119	48	7
				33.84	45.25	18.25	2.66
.21	.45	(33)	Local politicians usually worry a fair amount about the interests of their constituents.	A	a	d	D
				57	159	41	6
				21.67	60.46	15.59	2.28
.61	.61	(40)	To succeed in politics, it's primarily a matter of "who you know", not what you stand for.	D	d	a	A
				45	105	101	12
				17.11	39.92	38.4	4.56
.56	.62	(45)	No matter what form of government we have or who we elect to run it, there's always going to be a lot of corruption involved in it.	D	d	a	A
				55	116	80	12
				20.91	44.11	30.42	4.56
.32	.57	(47)	If people are stupid enough to place their faith in a politician, then they deserve it when he fleeces them later.	D	d	a	A
				143	101	18	1
				54.37	38.4	6.84	.38
.38	.38	(48)	Most city officials are responsible pretty much to the wishes of the citizens.	A	a	d	D
				60	146	48	9
				22.81	55.51	18.25	3.42
.58	.58	(50)	Most of the politicians in our government are just political hacks, or "cronies" of someone higher up in the government. ...	D	d	a	A
				82	138	38	5
				31.18	52.47	14.45	1.9
.56	.57	(52)	Politics in Canada is really controlled by a rather small group of powerful politicians who do pretty much what they want.	D	d	a	A
				49	112	89	13
				18.63	42.59	33.84	4.94

.50	.58	(53)	Most people who like to "play politics" are just trying to promote their own private interests.	D 45 17.11	d 111 42.21	a 98 37.26	A 9 3.42
.40	.56	(57)	From a moral standpoint, most governments are rotten through and through.	D 159 60.46	d 87 33.08	a 12 4.56	A 5 1.9
.39	.57	(62)	People who think that politicians really mean what they say are just naive fools.	D 49 18.63	d 159 60.46	a 48 18.25	A 7 2.66
.50	.64	(65)	It is pretty good policy to "trust a politicians as far as you could throw a bull by the tail."	D 83 31.56	d 140 53.23	a 35 13.31	A 5 1.9

FRITZ POLITICAL CYNICISM SCALE

.68	.66	(7)	It is difficult for me to imagine an honest politician. He may mean well when he starts out, but it is probable that he will not stay that way.	D 101 38.4	d 108 41.06	a 43 16.35	A 11 4.18
.36	.55	(9)	All this control of business by the government is just so politicians can show their power. ..	D 157 59.7	d 94 35.74	a 9 3.42	A 3 1.14
.44	.52	(18)	I think it is very near the truth to say than an honest man will not run for public office.	D 176 66.92	d 69 26.24	a 15 5.7	A 3 1.14
.52	.66	(20)	Politics is a racket. To call it a form of "legalized crookedness" would be a pretty good description.	D 146 55.51	d 91 34.6	a 22 8.37	A 4 1.52
.06	.46	(23)	Although elections in Canada are democratic, the people do not have as much voice in the government as they think they do.	D 43 16.35	d 119 45.25	a 73 27.76	A 28 10.65

.46	.54	(30)	I would say that perhaps as much as half of our money finds it's way into the pockets of grafters.	D	d	a	A
				148	98	15	2
				56.27	37.26	5.7	.76
.64	.52	(32)	You can get yourself elected to almost any public office if you have enough money.	D	d	a	A
				53	100	88	23
				19.77	38.02	33.46	8.75
.51	.46	(38)	All you need is the "gift of gab" in order to be elected to an office in Canada.	D	d	a	A
				120	110	30	3
				45.63	41.83	11.41	1.14
.40	.57	(44)	For the most part, our laws are made to protect the rich. ..	D	d	a	A
				70	136	50	7
				26.62	51.71	19.01	2.66
.47	.51	(59)	Every man in public office had a good possibility of becoming a crook.	D	d	a	A
				71	121	64	7
				27.	46.01	24.33	2.66

AGGER POLITICAL CYNICISM SCALE

.46	.57	(26)	Politicians spend most of their time getting re-elected or reappointed.	D	d	a	A
				75	118	66	4
				28.52	44.87	25.1	1.52
.50	.53	(27)	Politicians represent the general interest more frequently than they represent special interest.	A	a	d	D
				35	142	67	19
				13.31	53.99	25.48	7.22
.66	.62	(31)	In order to be nominated most candidates for political offices have to make basic compromises and undesirable commitments. ...	D	d	a	A
				51	93	97	22
				19.39	35.36	36.88	8.27
.61	.62	(34)	Money is the most important factor influencing public policies.	D	d	a	A
				22	70	127	44
				8.37	26.62	48.29	16.73
.64	.52	(42)	People are very frequently manipulated by politicians.	D	d	a	A
				13	74	145	31
				4.94	28.14	55.13	11.79
.58	.60	(61)	A large number of city and country politicians are political hacks.	D	d	a	A
				78	121	59	5
				29.66	46.01	22.43	1.9

POLITICAL ALIENATION SCALE

.43	.48	(2)	I like to participate in political activities.	A	a	d	D
				54	126	61	22
				20.53	47.91	23.19	8.37
.62	.60	(5)	Elected officials become tools of special interests, no matter what.	D	d	a	A
				37	94	116	16
				14.07	35.74	44.11	6.08
.64	.61	(24)	If people knew what was really going on in high places, they would blow the lid off things.	D	d	a	A
				43	113	89	18
				16.35	42.97	33.84	6.84
.59	.58	(36)	It doesn't matter which party wins the elections, the interest of the little man doesn't count.	D	d	a	A
				91	119	47	6
				34.6	45.25	17.87	2.28
.47	.57	(49)	I think that politicians are sincerely interested in the public's welfare, rather than in themselves.	A	a	d	D
				39	162	52	10
				14.83	61.6	19.77	3.8
.64	.55	(64)	Local officials lose touch with the people who elected them.	D	d	a	A
				32	103	106	22
				12.17	39.16	40.3	8.37

SENSE OF POLITICAL EFFICACY SCALE

.59	.65	(1)	I don't think public officials care much what people like me think.	A	a	d	D
				11	73	114	65
				4.18	27.76	43.35	24.71
.54	.56	(3)	What happens in the government will happen no matter what people do. It is like the weather, there is nothing people can do about it.	A	a	d	D
				8	19	74	162
				3.04	7.22	28.14	61.6
.58	.60	(4)	If they so desire, citizens have many chances to say what they think about running the government.	D	d	a	A
				5	28	107	123
				1.9	10.65	40.68	46.77

.42	.41	(15)	The way people vote is one of the primary means of deciding how things are run in this country.	D 17 6.46	d 56 21.29	a 99 37.64	A 91 34.6
.45	.49	(41)	Voting is the only way people like me can have any say how the government runs things.	A 34 12.93	a 69 26.24	d 102 38.78	D 58 22.05
.47	.52	(54)	Sometimes politics and government seem so complicated that a person like me can't really understand what is going on. ...	A 14 5.32	a 93 35.36	d 92 34.98	D 64 24.33
.62	.64	(58)	People like me don't have any say about what the government does.	A 4 1.52	a 32 12.17	d 114 43.35	D 113 42.97

SENSE OF CITIZEN DUTY SCALE

.53	.74	(17)	Voting is nothing but a nuisance.	A 3 1.14	a 5 1.9	d 24 9.13	D 231 84.83
.69	.70	(29)	It isn't so important to vote when you know your party doesn't have a chance to win.	A 5 1.9	a 3 1.14	d 41 15.59	D 214 81.37
.68	.71	(37)	So many other people vote in the national elections that it doesn't matter much to me whether I vote or not.	A 5 1.9	a 4 1.52	d 38 14.45	D 216 82.13
.49	.54	(39)	Only a fool would ever vote to increase his own taxes.	A 3 1.14	a 10 3.8	d 102 38.78	D 148 56.27
.63	.68	(60)	A good many local elections aren't important enough to bother with.	A 3 1.14	a 12 4.56	d 81 30.8	D 167 63.5
.59	.70	(63)	If a person doesn't care how an election comes out he shouldn't vote in it.	A 62 23.57	a 67 25.48	d 56 21.29	D 78 29.66

FRITZ PERSONAL CYNICISM SCALE

.40	.63	(6)	In this "game" called life, it is best to do the other fellow in before he does you in.	D 169 64.26	d 78 29.66	a 15 5.7	A 1 .38
.62	.60	(11)	I would say that more than 90% of the people would not hesitate to be more or less "crooked" if they were absolutely certain that no one would find out about it.	D 73 27.76	d 98 37.26	a 67 25.48	A 25 9.51
.42	.57	(16)	"Every man for himself and the devil take the hind-most" sounds like good sense to me.	D 163 61.98	d 80 30.42	a 16 6.08	A 4 1.52
.43	.63	(22)	Thoughtfulness of others is the "bunk." Sooner or later you be taken advantage of.	D 133 50.57	d 99 37.64	a 24 9.13	A 7 2.66
.63	.57	(35)	99% of big business corporations will use bribery, lawyer's tricks, and everything else to make money.	D 44 16.73	d 113 42.97	a 88 33.46	A 18 6.84
.63	.61	(43)	The average big industrial corporations certainly does "fleece" the public--just a bunch of "crooks."	D 76 28.9	d 137 52.09	a 45 17.11	A 5 1.9
.46	.56	(46)	You will have a lot less grief if you will look upon every agent or salesman as a crook.	D 100 38.02	d 125 47.53	a 34 12.93	A 4 1.52
.62	.53	(51)	Human nature is such that if you "give a man an inch," he will "take a mile."	D 46 17.49	d 120 45.63	a 88 33.46	A 9 3.42
.48	.62	(55)	Most millionaires are just clever crooks who have taken advantage of the "breaks."	D 102 38.78	d 127 48.29	a 28 10.65	A 6 2.28
.33	.59	(56)	Anyone who believes in "humanity" just lacks a little by way of understanding how the world is run.	D 147 55.89	d 97 35.36	a 21 7.98	A 2 .76

END

APPENDIX D

ADDITIONAL DATA

TABLE 22

ESTIMATED CORRELATION MATRIX WITH ERROR-FREE MEASURES
 AMONG SCALES OF THE BATTERY OF POLITICAL ATTITUDE
 TESTS FOR PILOT STUDY AND (STUDY) GROUPS

Scales	1	2	3	4	5	6	7	8
Gr.-Jo.	--	.96	.81	.97	-.48	-.32	.92	1.00
Pol. Cyn.	--	(.97)	(.86)	(1.00)	(-.60)	(-.44)	(.82)	(1.00)
Fritz			.74	.91	-.47	-.28	.98	1.00
Pol. Cyn.			(.83)	(1.00)	(-.47)	(-.42)	(.82)	(1.00)
Agger				.91	-.29	-.07	.71	.97
Pol. Cyn.				(1.00)	(-.50)	(-.39)	(.75)	(1.00)
Pol. Alie.					-.60	-.34	.80	.97
					(-.78)	(-.44)	(.80)	(1.00)
Pol. Eff.						.78	-.46	-.46
						(.73)	(-.38)	(-.57)
Cit. Duty							-.30	-.28
							(-.51)	(-.44)
Per. Cyn.								.60
								(.84)
Pol. Cyn.								--

TABLE 24

MATRIX OF z VALUES IN TEST OF SIGNIFICANCE OF DIFFERENCES
 BETWEEN PILOT STUDY AND STUDY GROUP CORRELATIONS
 FOR EIGHT SCALES OF THE BATTERY OF POLITICAL
 ATTITUDE TESTS

Scales	1	2	3	4	5	6	7	8
Gr.-Jo. Pol. Cyn.	--	3.08*	-.62	.00	.76	.85	2.56*	1.65
Fritz Pol. Cyn.			.26	.50	-.93	.56	4.70*	3.33*
Agger Pol. Cyn.				-.76	1.51	2.58*	-.34	-1.49
Pol. Alie.					1.24	.48	.44	-.57
Pol. Eff.						.17	-1.05	.81
Cit. Duty							1.63	1.34
Per. Cyn.								2.75*
Pol. Cyn.								--

*Significant at the .01 level for a two-tailed test.

TABLE 25

MEANS AND STANDARD DEVIATIONS OF SEX VARIABLE GROUPS
FOR EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Male	162	5.531	5.005
Pol. Cyn.	Female	101	4.426	4.493
	Total	263	5.106	4.845
Fritz	Male	162	2.259	1.897
Pol. Cyn.	Female	101	2.149	2.075
	Total	263	2.217	1.968
Agger	Male	162	3.451	2.152
Pol. Cyn.	Female	101	2.416	1.770
	Total	263	3.053	2.076
Pol. Alie.	Male	162	2.599	2.053
	Female	101	2.317	1.818
	Total	263	2.491	1.971
Pol. Eff.	Male	162	7.704	2.710
	Female	101	7.881	2.769
	Total	263	7.772	2.734
Cit. Duty	Male	162	9.309	2.077
	Female	101	9.218	2.323
	Total	263	9.274	2.175
Per. Cyn.	Male	162	2.247	2.239
	Female	101	2.129	2.492
	Total	263	2.202	2.340
Pol. Cyn.	Male	162	11.241	7.931
	Female	101	8.941	7.468
	Total	263	10.357	7.837

TABLE 26

ANALYSES OF VARIANCE OF SEX VARIABLE GROUP MEAN
SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	75.98	1	75.98		
Pol. Cyn.	WTH	6097.04	261	23.36	3.25	.07
Fritz	GRP	.76	1	.76		
Pol. Cyn.	WTH	1017.88	261	3.90	.20	.66
Agger	GRP	66.62	1	66.62		
Pol. Cyn.	WTH	1066.64	261	4.09	16.30	.00
Pol. Alie.	GRP	4.94	1	4.94		
	WTH	1016.78	261	3.90	1.27	.26
Pol. Eff.	GRP	1.95	1	1.95		
	WTH	1964.36	261	7.53	.26	.61
Cit. Duty	GRP	.51	1	.51		
	WTH	1243.78	261	4.77	.11	.74
Per. Cyn.	GRP	.87	1	.87		
	WTH	1439.45	261	5.52	.17	.69
Pol. Cyn.	GRP	329.15	1	329.15		
	WTH	15823.25	261	60.63	5.43	.02

$$F_{.10}(1,261) = 2.71$$

$$F_{.05}(1,261) = 3.84$$

$$F_{.01}(1,261) = 6.63$$

TABLE 27

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
SEX VARIABLE GROUP MEAN SCORES

Scales	Groups		Male	Female
		means	5.531	4.426
Gr.-Jo. Pol. Cyn.	Male	5.531	- - -	1.105 (.07)*
		means	2.259	2.149
Fritz Pol. Cyn.	Male	2.259	- - -	.111 (.66)
		means	3.451	2.416
Agger Pol. Cyn.	Male	3.451	- - -	1.035 (.0001)***
		means	2.599	2.317
Pol. Alie.	Male	2.559	- - -	.282 (.26)
		means	7.704	7.881
Pol. Eff.	Male	7.704	- - -	.177 (.61)
		means	9.309	9.218
Cit. Duty	Male	9.309	- - -	.091 (.74)
		means	2.247	2.129
Per. Cyn.	Male	2.247	- - -	.118 (.69)
		means	11.241	8.941
Pol. Cyn.	Male	11.241	- - -	2.3 (.02)**

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

TABLE 28

MEANS AND STANDARD DEVIATIONS OF MARITAL STATUS
VARIABLE GROUPS FOR EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Married	168	5.095	4.766
Pol. Cyn.	Engaged	10	6.800	3.458
	Single	85	4.929	5.094
	Total	263	5.106	4.845
Fritz	Married	168	2.274	1.926
Pol. Cyn.	Engaged	10	1.700	1.187
	Single	85	2.165	2.108
	Total	263	2.217	1.968
Agger	Married	168	3.208	2.163
Pol. Cyn.	Engaged	10	3.300	1.487
	Single	85	2.435	1.863
	Total	263	3.053	2.076
Pol. Alie.	Married	168	2.458	2.038
	Engaged	10	3.500	1.360
	Single	85	2.435	1.863
	Total	263	2.491	1.971
Pol. Eff.	Married	168	7.875	2.767
	Engaged	10	6.800	2.182
	Single	85	7.682	2.702
	Total	263	7.772	2.734
Cit. Duty	Married	168	9.399	2.085
	Engaged	10	8.400	2.691
	Single	85	9.129	2.248
	Total	263	9.274	2.175
Per. Cyn.	Married	168	2.101	2.235
	Engaged	10	2.800	2.561
	Single	85	2.329	2.494
	Total	263	2.202	2.340
Pol. Cyn.	Married	168	10.577	7.770
	Engaged	10	11.800	5.546
	Single	85	9.753	8.147
	Total	263	10.357	7.837

TABLE 29

ANALYSES OF VARIANCE OF MARITAL STATUS VARIABLE
GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	S	df	MS	F	P
Gr.-Jo.	GRP	31.36	2	15.68		
Pol. Cyn.	WTH	6141.16	260	23.62	.66	.52
Fritz	GRP	3.45	2	1.72		
Pol. Cyn.	WTH	1015.20	260	3.90	.44	.64
Agger	GRP	14.22	2	7.11		
Pol. Cyn.	WTH	1119.03	260	4.30	1.65	.19
Pol. Alie.	GRP	10.62	2	5.31		
	WTH	1011.10	260	3.89	1.37	.26
Pol. Eff.	GRP	11.91	2	5.96		
	WTH	1954.40	260	7.52	.79	.45
Cit. Duty	GRP	12.03	2	6.01		
	WTH	1232.26	260	4.74	1.27	.28
Per. Cyn.	GRP	6.66	2	3.33		
	WTH	1433.66	260	5.51	.60	.55
Pol. Cyn.	GRP	60.00	2	30.00		
	WTH	16092.41	260	61.89	.48	.62

$$F_{.10}(2,260) = 2.30$$

$$F_{.05}(2,260) = 3.00$$

$$F_{.01}(2,260) = 4.61$$

TABLE 30

MEANS AND STANDARD DEVIATIONS OF SCHOOL SYSTEM
VARIABLE GROUPS FOR EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Public	167	5.509	5.135
Pol. Cyn.	Separate	96	4.406	4.202
	Total	263	5.106	4.845
Fritz	Public	167	2.383	1.969
Pol. Cyn.	Separate	96	1.927	1.932
	Total	263	2.217	1.968
Agger	Public	167	3.305	2.188
Pol. Cyn.	Separate	96	2.615	1.782
	Total	263	3.053	2.076
Pol. Alie.	Public	167	2.653	2.038
	Separate	96	2.208	1.814
	Total	263	2.491	1.971
Pol. Eff.	Public	167	7.886	2.836
	Separate	96	7.573	2.536
	Total	263	7.772	2.734
Cit. Duty	Public	167	9.311	2.172
	Separate	96	9.208	2.179
	Total	263	9.274	2.175
Per. Cyn.	Public	167	2.258	2.295
	Separate	96	2.104	2.413
	Total	263	2.202	2.340
Pol. Cyn.	Public	167	11.168	8.191
	Separate	96	8.948	6.959
	Total	263	10.358	7.837

TABLE 31

ANALYSES OF VARIANCE OF SCHOOL SYSTEM VARIABLE
GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	74.12	1	74.13		
Pol. Cyn.	WTH	6098.89	261	23.37	3.17	.08
Fritz	GRP	12.68	1	12.68		
Pol. Cyn.	WTH	1005.96	261	3.85	3.29	.07
Agger	GRP	29.09	1	29.09		
Pol. Cyn.	WTH	1104.16	261	4.23	6.88	.009
Pol. Alie.	GRP	12.04	1	12.04		
	WTH	1009.69	261	3.87	3.11	.08
Pol. Eff.	GRP	5.98	1	5.98		
	WTH	1960.33	261	7.51	.80	.37
Cit. Duty	GRP	.64	1	.64		
	WTH	1243.64	261	4.76	.14	.71
Per. Cyn.	GRP	1.43	1	1.43		
	WTH	1438.89	261	5.51	.26	.61
Pol. Cyn.	GRP	300.36	1	300.36		
	WTH	15852.05	261	60.74	4.95	.03

$$F_{.10}(1,261) = 2.71$$

$$F_{.05}(1,261) = 3.84$$

$$F_{.01}(1,261) = 6.63$$

TABLE 32

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
OF SCHOOL SYSTEM VARIABLE GROUP MEAN SCORES

Scales	Groups		Public	Separate
		means	5.509	4.406
Gr.-Jo. Pol. Cyn.	Public	5.509	- - -	1.103 (.08)*
		means	2.383	1.927
Fritz Pol. Cyn.	Public	2.383	- - -	.456 (.07)*
		means	3.305	2.615
Agger Pol. Cyn.	Public	3.305	- - -	.691 (.009)***
		means	2.653	2.208
Pol. Alie.	Public	2.653	- - -	.444 (.08)*
		means	7.886	7.573
Pol. Eff.	Public	7.886	- - -	.130 (.37)
		means	9.311	9.208
Cit. Duty	Public	9.311	- - -	.103 (.71)
		means	2.257	2.104
Per. Cyn.	Public	2.257	- - -	.153 (.61)
		means	11.168	8.928
Pol. Cyn.	Public	11.168	- - -	2.220 (.03)**

* Significant at the .10 level.

** Significant at the .05 level.

*** Significant at the .01 level.

TABLE 33

MEANS AND STANDARD DEVIATIONS OF SCHOOL BOARD
VARIABLE GROUPS FOR EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	A	167	5.509	5.135
Pol. Cyn.	B	42	4.381	4.429
	C	54	4.426	4.017
	Total	263	5.106	4.845
Fritz	A	167	2.383	1.969
Pol. Cyn.	B	42	1.952	2.115
	C	54	1.907	1.777
	Total	263	2.217	1.968
Agger	A	167	3.305	2.188
Pol. Cyn.	B	42	2.691	2.053
	C	54	2.556	1.536
	Total	263	3.053	2.076
Pol. Alie.	A	167	2.653	2.038
	B	42	2.310	1.858
	C	54	2.130	1.775
	Total	263	2.491	1.971
Pol. Eff.	A	167	7.886	2.836
	B	42	7.595	2.582
	C	54	7.556	2.449
	Total	263	7.772	2.734
Cit. Duty	A	167	9.311	2.172
	B	42	9.333	2.347
	C	54	9.111	2.034
	Total	263	9.274	2.175
Per. Cyn.	A	167	2.258	2.295
	B	42	2.024	2.385
	C	54	2.167	2.432
	Total	263	2.202	2.340
Pol. Cyn.	A	167	11.168	8.191
	B	42	9.024	7.738
	C	54	8.889	6.285
	Total	263	10.357	7.837

TABLE 34

ANALYSES OF VARIANCE OF SCHOOL BOARD VARIABLE
GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	74.17	2	37.08		
Pol. Cyn.	WTH	6098.85	260	23.46	1.58	.21
Fritz	GRP	12.73	2	6.37		
Pol. Cyn.	WTH	1005.92	260	3.87	1.65	.20
Agger	GRP	29.52	2	14.76		
Pol. Cyn.	WTH	1103.74	260	4.25	3.48	.03
Pol. Alie.	GRP	12.80	2	6.40		
	WTH	1008.92	260	3.88	1.65	.19
Pol. Eff.	GRP	6.02	2	3.01		
	WTH	1960.30	260	7.54	.40	.67
Cit. Duty	GRP	1.81	2	.90		
	WTH	1242.48	260	4.78	.19	.83
Per. Cyn.	GRP	1.92	2	.96		
	WTH	1438.40	260	5.53	.17	.84
Pol. Cyn.	GRP	300.78	2	150.39		
	WTH	15851.61	260	60.97	2.47	.09

$$F_{.10}(2,260) = 2.30$$

$$F_{.05}(2,260) = 3.00$$

$$F_{.01}(2,260) = 4.61$$

TABLE 35

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
OF SCHOOL BOARD VARIABLE GROUP MEAN SCORES

Scales	Groups		A	B	C
		means	5.509	4.381	4.426
Gr.-Jo. Pol. Cyn.	A	5.509	- - -	1.128 (.40)	1.083 (.36)
	B	4.381	- - -	- - -	.045 (.99)
		means	2.383	1.952	1.907
Fritz Pol. Cyn.	A	2.383	- - -	.431 (.45)	.476 (.31)
	B	1.952	- - -	- - -	.045 (.99)
		means	3.305	2.690	2.556
Agger Pol. Cyn.	A	3.305	- - -	.615 (.23)	.750 (.07)*
	B	2.690	- - -	- - -	.135 (.95)
		means	2.653	2.310	2.130
Pol. Alie.	A	2.653	- - -	.343 (.60)	.523 (.24)
	B	2.310	- - -	- - -	.180 (.91)
		means	7.886	7.595	7.556
Pol. Eff.	A	7.886	- - -	.291 (.83)	.331 (.74)
	B	7.595	- - -	- - -	.040 (.99)
		means	9.311	9.333	9.111
Cit. Duty	A	9.311	- - -	.022 (.99)	.200 (.84)
	B	9.333	- - -	- - -	.222 (.88)
		means	2.257	2.024	2.167
Per. Cyn.	A	2.257	- - -	.234 (.85)	.091 (.97)
	B	2.024	- - -	- - -	.143 (.96)
		means	11.168	9.024	8.899
Pol. Cyn.	A	11.168	- - -	2.144 (.28)	2.279 (.18)
	B	9.024	- - -	- - -	.135 (.99)

* Significant at the .10 level.

TABLE 36

MEANS AND STANDARD DEVIATIONS OF LEVEL OF SCHOOL
VARIABLE GROUPS ON EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo. Pol. Cyn.	Jr. High	189	4.979	4.786
	Sr. High	74	5.432	4.976
	Total	263	5.106	4.845
Fritz	Jr. High	189	2.302	2.002
	Sr. High	74	2.000	1.860
	Total	263	2.217	1.968
Agger	Jr. High	189	3.026	2.107
	Sr. High	74	3.122	1.993
	Total	263	3.053	2.076
Pol. Alie.	Jr. High	189	2.534	1.969
	Sr. High	74	2.378	1.971
	Total	263	2.491	1.971
Pol. Eff.	Jr. High	189	7.735	2.751
	Sr. High	74	7.865	2.688
	Total	263	7.772	2.734
Cit. Duty	Jr. High	189	9.148	2.302
	Sr. High	74	9.595	1.770
	Total	263	9.274	2.175
Per. Cyn.	Jr. High	189	2.339	2.391
	Sr. High	74	1.851	2.167
	Total	263	2.202	2.340
Pol. Cyn.	Jr. High	189	10.280	7.819
	Sr. High	74	10.554	7.879
	Total	263	10.357	7.837

TABLE 37

ANALYSES OF VARIANCE OF LEVEL OF SCHOOL VARIABLE
GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	10.94	1	10.94		
Pol. Cyn.	WTH	6162.08	261	23.61	.46	.50
Fritz	GRP	4.84	1	4.84		
Pol. Cyn.	WTH	1013.81	261	3.88	1.25	.26
Agger	GRP	.48	1	.48		
Pol. Cyn.	WTH	1132.77	261	4.34	.11	.74
Pol. Alie.	GRP	1.29	1	1.29		
	WTH	1020.43	261	3.91	.33	.56
Pol. Eff.	GRP	.89	1	.89		
	WTH	1965.42	261	7.53	.12	.73
Cit. Duty	GRP	10.59	1	10.59		
	WTH	1233.70	261	4.73	2.24	.14
Per. Cyn.	GRP	12.63	1	12.63		
	WTH	1427.69	261	5.47	2.31	.13
Pol. Cyn.	GRP	3.98	1	3.98		
	WTH	16148.42	261	61.87	.06	.80

$$F_{.10}(1,261) = 2.71$$

$$F_{.05}(1,261) = 3.84$$

$$F_{.01}(1,261) = 6.63$$

TABLE 38

MEANS AND STANDARD DEVIATIONS OF COUNTRY OF ORIGIN
VARIABLE GROUPS ON EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo. Pol. Cyn.	Canada	232	5.091	4.852
	Others	31	5.226	4.951
	Total	263	5.106	4.845
Fritz Pol. Cyn.	Canada	232	2.233	2.021
	Others	31	2.097	1.578
	Total	263	2.217	1.968
Agger Pol. Cyn.	Canada	232	3.060	2.109
	Others	31	3.000	1.880
	Total	263	3.053	2.076
Pol. Alie.	Canada	232	2.457	1.936
	Others	31	2.742	2.265
	Total	263	2.491	1.971
Pol. Eff.	Canada	232	7.750	2.790
	Others	31	7.936	2.366
	Total	263	7.772	2.734
Cit. Duty	Canada	232	9.341	2.233
	Others	31	8.774	1.668
	Total	263	9.274	2.175
Per. Cyn.	Canada	232	2.155	2.374
	Others	31	2.548	2.111
	Total	263	2.202	2.340
Pol. Cyn.	Canada	232	10.362	7.930
	Others	31	10.323	7.359
	Total	263	10.357	7.837

TABLE 39

ANALYSES OF VARIANCE OF COUNTRY OF ORIGIN VARIABLE
GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	.50	1	.50		
Pol. Cyn.	WTH	6172.52	261	23.65	.02	.88
Fritz	GRP	.51	1	.51		
Pol. Cyn.	WTH	1018.14	261	3.90	.13	.72
Agger	GRP	.10	1	.10		
Pol. Cyn.	WTH	1133.16	261	4.34	.02	.88
Pol. Alie.	GRP	2.22	1	2.22		
	WTH	1019.50	261	3.91	.57	.45
Pol. Eff.	GRP	.94	1	.94		
	WTH	1965.37	261	7.53	.13	.72
Cit. Duty	GRP	8.77	1	8.77		
	WTH	1235.52	261	4.73	1.85	.18
Per. Cyn.	GRP	4.23	1	4.23		
	WTH	1436.09	261	5.50	.77	.38
Pol. Cyn.	GRP	.04	1	.04		
	WTH	16152.37	261	61.89	.00	.98

$$F_{.10}(1,261) = 2.71$$

$$F_{.05}(1,261) = 3.84$$

$$F_{.01}(1,261) = 6.63$$

TABLE 40

MEANS AND STANDARD DEVIATIONS OF CANADIAN REGIONAL
ORIGIN VARIABLE GROUPS ON EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Western	199	5.111	4.906
Pol. Cyn.	Central	15	5.533	5.027
	Maritime	19	5.211	4.421
	N. A.	30	4.800	4.421
	Total	263	5.106	4.845
Fritz	Western	199	2.171	1.918
Pol. Cyn.	Central	15	2.667	2.469
	Maritime	19	2.632	2.650
	N. A.	30	2.033	1.564
	Total	263	2.217	1.968
Agger	Western	199	3.106	2.133
Pol. Cyn.	Central	15	2.733	1.831
	Maritime	19	2.895	2.079
	N. A.	30	2.967	1.902
	Total	263	3.053	2.076
Pol. Alie.	Western	199	2.487	1.912
	Central	15	2.267	2.244
	Maritime	19	2.421	2.244
	N. A.	30	2.667	2.264
	Total	263	2.491	1.971
Pol. Eff.	Western	199	7.749	2.739
	Central	15	7.200	3.570
	Maritime	19	8.263	2.642
	N. A.	30	7.900	2.398
	Total	263	7.772	2.734
Cit. Duty	Western	199	9.322	2.210
	Central	15	8.867	2.722
	Maritime	19	9.947	1.985
	N. A.	30	8.733	1.680
	Total	263	9.274	2.175
Per. Cyn.	Western	199	2.065	2.254
	Central	15	2.133	2.264
	Maritime	19	3.000	3.448
	N. A.	30	2.633	2.092
	Total	263	2.202	2.340
Pol. Cyn.	Western	199	10.362	7.911
	Central	15	10.933	7.488
	Maritime	19	10.737	9.392
	N. A.	30	9.800	6.875
	Total	263	10.357	7.837

TABLE 41

ANALYSES OF VARIANCE OF CANADIAN REGIONAL ORIGIN VARIABLE
GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	5.75	3	1.92		
Pol. Cyn.	WTH	6167.73	259	23.81	.08	.97
Fritz	GRP	7.73	3	2.58		
Pol. Cyn.	WTH	1010.91	259	3.90	.66	.58
Agger	GRP	2.78	3	.98		
Pol. Cyn.	WTH	1130.47	259	4.36	.21	.89
Pol. Alie.	GRP	1.78	3	.59		
	WTH	1019.23	259	3.94	.15	.93
Pol. Eff.	GRP	10.08	3	3.36		
	WTH	1956.23	259	7.55	.44	.72
Cit. Duty	GRP	20.30	3	6.77		
	WTH	1223.97	259	4.73	1.43	.23
Per Cyn.	GRP	21.47	3	7.16		
	WTH	1418.85	259	5.48	1.31	.27
Pol. Cyn.	GRP	17.03	3	5.68		
	WTH	16135.38	259	62.30	.09	.96

 $F_{.10}(3,259) = 2.08$
 $F_{.05}(3,259) = 2.60$
 $F_{.01}(3,259) = 3.78$

TABLE 43

MEANS AND STANDARD DEVIATIONS OF POLITICAL ORIENTATION
VARIABLE GROUPS ON EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Liberal	131	4.328	4.041
Pol. Cyn.	Conservative	63	6.857	5.546
	Socialist	27	4.000	3.186
	Independent	42	5.619	5.988
	Total	263	5.106	4.845
Fritz	Liberal	131	2.015	1.824
Pol. Cyn.	Conservative	63	2.444	2.238
	Socialist	27	1.778	1.474
	Independent	42	2.786	2.076
	Total	263	2.217	1.968
Agger	Liberal	131	2.702	1.819
Pol. Cyn.	Conservative	63	3.444	1.942
	Socialist	27	3.407	2.614
	Independent	42	3.333	2.417
	Total	263	3.053	2.076
Pol. Alie.	Liberal	131	2.313	1.829
	Conservative	63	2.873	2.082
	Socialist	27	2.148	1.860
	Independent	42	2.691	2.177
	Total	263	2.491	1.971
Pol. Eff.	Liberal	131	7.970	2.754
	Conservative	63	7.238	2.724
	Socialist	27	8.222	1.931
	Independent	42	7.667	2.989
	Total	263	7.772	2.734
Cit. Duty	Liberal	131	9.183	2.363
	Conservative	63	9.191	2.181
	Socialist	27	9.667	1.414
	Independent	42	9.429	1.904
	Total	263	9.274	2.175
Per. Cyn.	Liberal	131	2.008	2.290
	Conservative	63	2.635	2.438
	Socialist	27	1.741	1.712
	Independent	42	2.452	2.556
	Total	263	2.202	2.340
Pol. Cyn.	Liberal	131	9.008	6.811
	Conservative	63	12.746	8.344
	Socialist	27	9.185	6.086
	Independent	42	11.738	9.727
	Total	263	10.357	7.837

TABLE 43

ANALYSES OF VARIANCE OF POLITICAL ORIENTATION
VARIABLE GROUP MEAN SCORES ON EIGHT ATTITUDE
SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	316.51	3	105.50		
Pol. Cyn.	WTH	5856.51	259	22.61	4.67	.003
Fritz	GRP	27.38	3	9.13		
Pol. Cyn.	WTH	991.26	259	3.83	2.38	.07
Agger	GRP	32.46	3	10.82		
Pol. Cyn.	WTH	1100.80	259	4.25	2.55	.06
Pol. Alie.	GRP	18.19	3	6.06		
	WTH	1003.54	259	3.87	1.56	.20
Pol. Eff.	GRP	29.00	3	9.67		
	WTH	1937.31	259	7.48	1.29	.28
Cit. Duty	GRP	6.68	3	2.23		
	WTH	1237.61	259	4.78	.47	.71
Per. Cyn.	GRP	25.14	3	8.38		
	WTH	1415.18	259	5.46	1.53	.21
Pol. Cyn.	GRP	715.28	3	238.43		
	WTH	15437.13	259	59.60	4.00	.008

$$F_{.10}(3,259) = 2.08$$

$$F_{.05}(3,259) = 2.60$$

$$F_{.01}(3,259) = 3.78$$

TABLE 44

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
OF POLITICAL ORIENTATION VARIABLE GROUP MEAN SCORES

Scales	Groups		Lib.	Con.	Soc.	Ind.
Gr.-Jo. Pol. Cyn.		means	4.328	6.857	4.000	5.619
	Lib.	4.328	- - -	2.529 (.008)***	.328 (.99)	1.291 (.51)
	Con.	6.857	- - -	- - -	2.857 (.08)*	1.238 (.64)
	Soc.	4.000	- - -	- - -	- - -	1.619 (.59)
		means	2.015	2.444	1.778	2.786
Fritz Pol. Cyn.	Lib.	2.015	- - -	.429 (.56)	.237 (.95)	.770 (.18)
	Con.	2.444	- - -	- - -	.667 (.53)	.341 (.86)
	Soc.	1.778	- - -	- - -	- - -	1.008 (.23)
		means	2.702	3.444	3.407	3.333
Agger Pol. Cyn.	Lib.	2.702	- - -	.742 (.14)	.705 (.46)	.631 (.40)
	Con.	3.444	- - -	- - -	.037 (.999)	.111 (.995)
	Soc.	3.407	- - -	- - -	- - -	.071 (.999)
		means	2.313	2.873	2.148	2.690
Pol. Alie.	Lib.	2.313	- - -	.560 (.33)	.165 (.98)	.377 (.76)
	Con.	2.873	- - -	- - -	.725 (.46)	.183 (.98)
	Soc.	2.148	- - -	- - -	- - -	.542 (.74)
		means	7.969	7.238	8.222	7.667
Pol. Eff.	Lib.	7.969	- - -	.731 (.39)	.253 (.98)	.303 (.94)
	Con.	7.238	- - -	- - -	.984 (.49)	.429 (.89)
	Soc.	8.222	- - -	- - -	- - -	.556 (.88)
		means	9.183	9.190	9.667	9.429
Cit. Duty	Lib.	9.183	- - -	.007 (1.00)	.483 (.78)	.245 (.94)
	Con.	9.190	- - -	- - -	.476 (.83)	.238 (.96)
	Soc.	9.667	- - -	- - -	- - -	.238 (.98)
		means	2.008	2.635	1.741	2.452
Per. Cyn.	Lib.	2.008	- - -	.627 (.38)	.267 (.96)	.445 (.76)
	Con.	2.635	- - -	- - -	.894 (.43)	.183 (.98)
	Soc.	1.741	- - -	- - -	- - -	.712 (.68)
		means	9.008	12.746	9.185	11.738
Pol. Cyn.	Lib.	9.008	- - -	3.738 (.02)**	.178 (.99)	2.730 (.27)
	Con.	12.746	- - -	- - -	3.561 (.26)	1.008 (.93)
	Soc.	9.185	- - -	- - -	- - -	2.553 (.62)

TABLE 45

MEANS AND STANDARD DEVIATIONS OF AGE VARIABLE
GROUPS ON EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Up to 29 yrs	149	5.275	4.862
Pol. Cyn.	30-44 yrs	79	5.089	4.667
	45 yrs and over	35	4.429	5.102
	Total	263	5.106	4.845
Fritz	Up to 29 yrs	149	2.235	1.923
Pol. Cyn.	30-44 yrs	79	2.278	2.158
	45 yrs and over	35	2.000	1.673
	Total	263	2.217	1.968
Agger	Up to 29 yrs	149	3.222	1.983
Pol. Cyn.	30-44 yrs	79	3.089	2.246
	45 yrs and over	35	2.257	1.872
	Total	263	3.053	2.076
Pol. Alie.	Up to 29 yrs	149	2.497	1.878
	30-44 yrs	79	2.633	2.154
	45 yrs and over	35	2.143	1.884
	Total	263	2.491	1.971
Pol. Eff.	Up to 29 yrs	149	7.846	2.662
	30-44 yrs	79	7.494	2.863
	45 yrs and over	35	8.086	2.687
	Total	263	7.772	2.734
Cit. Duty	Up to 29 yrs	149	9.262	2.218
	30-44 yrs	79	9.215	2.260
	45 yrs and over	35	9.457	1.746
	Total	263	9.274	2.175
Per. Cyn.	Up to 29 yrs	149	2.376	2.550
	30-44 yrs	79	2.266	2.145
	45 yrs and over	35	1.314	1.469
	Total	263	2.202	2.340
Pol. Cyn.	Up to 29 yrs	149	10.698	7.655
	30-44 yrs	79	10.456	8.147
	45 yrs and over	35	8.686	7.675
	Total	263	10.357	7.837

TABLE 46

ANALYSES OF VARIANCE OF AGE VARIABLE GROUP MEAN
SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	20.34	2	10.17		
Pol. Cyn.	WTH	6152.68	260	23.66	.43	.65
Fritz	GRP	1.99	2	1.00		
Pol. Cyn.	WTH	1016.66	260	3.91	.26	.78
Agger	GRP	26.50	2	13.35		
Pol. Cyn.	WTH	1106.75	260	4.26	3.11	.05
Pol. Alie.	GRP	5.84	2	2.92		
	WTH	1015.89	260	3.91	.75	.48
Pol. Eff.	GRP	10.36	2	5.18		
	WTH	1955.95	260	7.52	.69	.50
Cit. Duty	GRP	1.46	2	.73		
	WTH	1242.82	260	4.78	.15	.86
Per. Cyn.	GRP	32.41	2	16.20		
	WTH	1407.91	260	5.42	2.99	.05
Pol. Cyn.	GRP	115.86	2	57.93		
	WTH	16036.55	260	61.68	.94	.39

$$F_{.10}(2,260) = 2.30$$

$$F_{.05}(2,260) = 3.00$$

$$F_{.01}(2,260) = 4.61$$

TABLE 47

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
OF AGE VARIABLE GROUP MEAN SCORES

Scales	Groups		Up to 29 yrs	30-44 yrs	45 yrs and over
		means	5.275	5.089	4.429
	Up to 29 yrs	5.275	- - -	.187 (.96)	.847 (.65)
Gr.-Jo. Pol. Cyn.	30-44 yrs	5.089	- - -	- - -	.660 (.80)
		means	2.235	2.278	2.000
	Up to 29 yrs	2.235	- - -	.044 (.99)	.235 (.82)
Fritz Pol. Cyn.	30-44 yrs	2.278	- - -	- - -	.278 (.79)
		means	3.221	3.089	2.257
	Up to 29 yrs	3.221	- - -	.133 (.90)	.964 (.05)**
Agger Pol. Cyn.	30-44 yrs	3.089	- - -	- - -	.831 (.14)
		means	2.497	2.633	2.143
	Up to 29 yrs	2.497	- - -	.136 (.88)	.354 (.64)
Pol. Alie.	30-44 yrs	2.633	- - -	- - -	.490 (.48)
		means	7.846	7.494	8.086
	Up to 29 yrs	7.846	- - -	.352 (.65)	.240 (.90)
Pol. Eff.	30-44 yrs	7.494	- - -	- - -	.592 (.57)
		means	9.262	9.215	9.457
	Up to 29 yrs	9.262	- - -	.047 (.99)	.195 (.89)
Cit. Duty	30-44 yrs	9.215	- - -	- - -	.242 (.86)
		means	2.376	2.266	1.314
	Up to 29 yrs	2.376	- - -	.110 (.94)	1.062 (.052)*
Per. Cyn.	30-44 yrs	2.266	- - -	- - -	.952 (.13)
		means	10.698	10.456	8.686
	Up to 29 yrs	10.698	- - -	.242 (.98)	2.012 (.40)
Pol. Cyn.	30-44 yrs	10.456	- - -	- - -	1.770 (.54)

* Significant at the .10 level.

** Significant at the .05 level.

TABLE 48

MEANS AND STANDARD DEVIATIONS OF YEARS OF TEACHING
EXPERIENCE VARIABLE GROUPS ON EIGHT ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	0-6 yrs	161	5.211	4.897
Pol. Cyn.	7-13 yrs	62	5.194	4.659
	14 yrs and over	40	4.550	4.878
	Total	263	5.106	4.845
Fritz	0-6 yrs	161	2.205	1.966
Pol. Cyn.	7-13 yrs	62	2.323	2.038
	14 yrs and over	40	2.100	1.855
	Total	263	2.217	1.968
Agger	0-6 yrs	161	3.137	2.054
Pol. Cyn.	7-13 yrs	62	3.097	2.123
	14 yrs and over	40	2.650	2.044
	Total	263	3.053	2.076
Pol. Alie.	0-6 yrs	161	2.497	1.956
	7-13 yrs	62	2.452	2.145
	14 yrs and over	40	2.525	1.723
	Total	263	2.491	1.971
Pol. Eff.	0-6 yrs	161	7.745	2.744
	7-13 yrs	62	7.645	2.818
	14 yrs and over	40	8.075	2.534
	Total	263	7.772	2.734
Cit. Duty	0-6 yrs	161	9.273	2.337
	7-13 yrs	62	9.145	2.285
	14 yrs and over	40	9.475	1.673
	Total	263	9.274	2.175
Per. Cyn.	0-6 yrs	161	2.286	2.358
	7-13 yrs	62	2.306	2.420
	14 yrs and over	40	1.700	2.064
	Total	263	2.202	2.340
Pol. Cyn.	0-6 yrs	161	10.522	7.963
	7-13 yrs	62	10.613	7.662
	14 yrs and over	40	9.300	7.600
	Total	263	10.357	7.837

TABLE 49

ANALYSES OF VARIANCE OF YEARS OF TEACHING EXPERIENCE
VARIABLE GROUP MEAN SCORES ON EIGHT ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	14.62	2	7.31		
Pol. Cyn.	WTH	6158.40	260	23.69	.31	.74
Fritz	GRP	1.26	2	.63		
Pol. Cyn.	WTH	1017.38	260	3.91	.61	.85
Agger	GRP	7.74	2	3.87		
Pol. Cyn.	WTH	1125.25	260	4.33	.89	.41
Pol. Alie.	GRP	.15	2	.07		
	WTH	1021.58	260	3.93	.02	.98
Pol. Eff.	GRP	4.78	2	2.39		
	WTH	1961.53	260	7.54	.32	.73
Cit. Duty	GRP	2.64	2	1.32		
	WTH	1241.65	260	4.78	.28	.78
Per. Cyn.	GRP	11.88	2	5.94		
	WTH	1428.43	260	5.49	1.08	.34
Pol. Cyn.	GRP	53.12	2	26.56		
	WTH	16099.29	260	61.92	.43	.65

$$F_{.10}(2,260) = 2.30$$

$$F_{.05}(2,260) = 3.00$$

$$F_{.01}(2,260) = 4.61$$

TABLE 50

MEANS AND STANDARD DEVIATIONS OF VOTING IN LAST
FEDERAL ELECTION VARIABLE GROUPS ON EIGHT
ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Did vote	215	5.242	5.064
Pol. Cyn.	Did not vote	18	5.056	3.597
	Not eligible	30	4.167	3.634
	Total	263	5.106	4.845
Fritz	Did vote	215	2.270	2.019
Pol. Cyn.	Did not vote	18	2.222	1.902
	Not eligible	30	1.833	1.551
	Total	263	2.217	1.968
Agger	Did vote	215	3.130	2.185
Pol. Cyn.	Did not vote	18	2.722	1.520
	Not eligible	30	2.700	1.394
	Total	263	3.053	2.076
Pol. Alie.	Did vote	215	2.507	2.032
	Did not vote	18	3.000	2.000
	Not eligible	30	2.067	1.437
	Total	263	2.491	1.971
Pol. Eff.	Did vote	215	7.767	2.781
	Did not vote	18	7.722	2.683
	Not eligible	30	7.833	2.410
	Total	263	7.772	2.734
Cit. Duty	Did vote	215	9.423	2.035
	Did not vote	18	8.278	2.663
	Not eligible	30	8.800	2.561
	Total	263	9.274	2.175
Per. Cyn.	Did vote	215	2.112	2.267
	Did not vote	18	3.111	2.514
	Not eligible	30	2.300	2.610
	Total	263	2.202	2.340
Pol. Cyn.	Did vote	215	10.642	8.188
	Did not vote	18	10.000	6.562
	Not eligible	30	8.533	5.532
	Total	263	10.357	7.837

TABLE 51

ANALYSES OF VARIANCE OF VOTING IN LAST FEDERAL
ELECTION VARIABLE GROUP MEAN SCORES ON EIGHT
ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	30.48	2	15.24		
Pol. Cyn.	WTH	6142.54	260	23.63	.65	.52
Fritz	GRP	5.02	2	2.51		
Pol. Cyn.	WTH	1013.63	260	3.90	.64	.53
Agger	GRP	6.99	2	3.49		
Pol. Cyn.	WTH	1126.26	260	4.33	.81	.45
Pol. Alie.	GRP	10.12	2	5.06		
	WTH	1011.61	260	3.89	1.30	.27
Pol. Eff.	GRP	.16	2	.08		
	WTH	1966.16	260	7.56	.01	.99
Cit. Duty	GRP	29.39	2	14.70		
	WTH	1214.90	260	4.67	3.14	.04
Per. Cyn.	GRP	16.92	2	8.46		
	WTH	1223.40	260	5.47	1.55	.22
Pol. Cyn.	GRP	119.51	2	59.76		
	WTH	16032.90	260	61.66	.97	.38

 $F_{.10}(2,260) = 2.30$
 $F_{.05}(2,260) = 3.00$
 $F_{.01}(2,260) = 4.61$

TABLE 52

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
OF VOTING IN LAST FEDERAL ELECTION VARIABLE GROUP
MEAN SCORES

Scales	Groups		Did Vote	Did not Vote	Not Eligible
Gr.-Jo. Pol. Cyn.		means	5.242	5.056	4.167
	Did vote	5.242	- - -	.186 (.99)	1.075 (.53)
	Did not vote	5.056	- - -	- - -	.889 (.83)
Fritz Pol. Cyn.		means	2.270	2.222	1.833
	Did vote	2.270	- - -	.048 (.99)	.436 (.53)
	Did not vote	2.222	- - -	- - -	.389 (.80)
Agger Pol. Cyn.		means	3.130	2.722	2.700
	Did vote	3.130	- - -	.408 (.73)	.430 (.57)
	Did not vote	2.722	- - -	- - -	.022 (.99)
Pol. Alie.		means	2.507	3.000	2.067
	Did vote	2.507	- - -	.493 (.60)	.440 (.52)
	Did not vote	3.000	- - -	- - -	.933 (.29)
Pol. Eff.		means	7.767	7.722	7.833
	Did vote	7.767	- - -	.045 (.998)	.066 (.99)
	Did not vote	7.722	- - -	- - -	.111 (.99)
Cit. Duty		means	9.423	8.278	8.800
	Did vote	9.423	- - -	1.145 (.099)*	.623 (.34)
	Did not vote	8.278	- - -	- - -	.522 (.72)
Per. Cyn.		means	2.112	3.111	2.300
	Did vote	2.112	- - -	.999 (.22)	.188 (.92)
	Did not vote	3.111	- - -	- - -	.811 (.51)
Pol. Cyn.		means	10.642	10.000	8.533
	Did vote	10.642	- - -	.642 (.95)	2.109 (.39)
	Did not vote	10.000	- - -	- - -	1.467 (.82)

* Significant at the .10 level.

TABLE 53

MEANS AND STANDARD DEVIATIONS OF VOTING IN LAST
PROVINCIAL ELECTION VARIABLE GROUPS ON EIGHT
ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Did vote	219	5.416	5.098
Pol. Cyn.	Did not vote	22	4.818	2.774
	Not eligible	22	5.000	3.754
	Total	263	5.106	4.845
Fritz	Did vote	219	2.288	2.046
Pol. Cyn.	Did not vote	22	1.818	1.497
	Not eligible	22	1.909	1.443
	Total	263	2.217	1.968
Agger	Did vote	219	2.986	2.079
Pol. Cyn.	Did not vote	22	3.546	2.330
	Not eligible	22	3.227	1.650
	Total	263	3.053	2.076
Pol. Alie.	Did vote	219	2.489	2.046
	Did not vote	22	2.591	1.527
	Not eligible	22	2.409	1.557
	Total	263	2.491	1.971
Pol. Eff.	Did vote	219	7.753	2.745
	Did not vote	22	8.227	2.575
	Not eligible	22	7.500	2.726
	Total	263	7.772	2.734
Cit. Duty	Did vote	219	9.384	2.113
	Did not vote	22	9.046	2.402
	Not eligible	22	8.409	2.329
	Total	263	9.274	2.175
Per. Cyn.	Did vote	219	2.068	2.337
	Did not vote	22	2.909	1.952
	Not eligible	22	2.818	2.498
	Total	263	2.202	2.340
Pol. Cyn.	Did vote	219	10.397	8.209
	Did not vote	22	10.182	5.694
	Not eligible	22	10.136	5.562
	Total	263	10.357	7.837

TABLE 54

ANALYSES OF VARIANCE OF VOTING IN LAST PROVINCIAL
ELECTION VARIABLE GROUP MEAN SCORES ON EIGHT
ATTITUDE SCALES

Scales	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	2.42	2	1.21		
Pol. Cyn.	WTH	6170.60	260	23.73	.05	.95
Fritz	GRP	6.68	2	3.34		
Pol. Cyn.	WTH	1011.97	260	3.89	.86	.42
Agger	GRP	6.98	2	3.49		
Pol. Cyn.	WTH	1126.28	260	4.33	.81	.45
Pol. Alie.	GRP	.37	2	.18		
	WTH	1021.36	260	3.93	.05	.95
Pol. Eff.	GRP	6.26	2	3.13		
	WTH	1960.05	260	7.54	.42	.66
Cit. Duty	GRP	20.23	2	10.12		
	WTH	1224.06	260	4.71	2.15	.12
Per. Cyn.	GRP	23.26	2	11.63		
	WTH	1417.06	260	5.45	2.13	.12
Pol. Cyn.	GRP	2.10	2	1.05		
	WTH	16150.31	260	62.12	.02	.98

$$F_{.10}(2,260) = 2.30$$

$$F_{.05}(2,260) = 3.00$$

$$F_{.01}(2,260) = 4.61$$

TABLE 55

MEANS AND STANDARD DEVIATIONS OF VOTING IN LAST
MUNICIPAL ELECTION VARIABLE GROUPS ON EIGHT
ATTITUDE SCALES

Scales	Groups	No.	Means	S. Dev.
Gr.-Jo.	Did vote	196	5.026	5.027
Pol. Cyn.	Did not vote	37	5.865	4.485
	Not eligible	30	4.700	3.866
	Total	263	5.106	4.845
Fritz	Did vote	196	2.179	2.011
Pol. Cyn.	Did not vote	37	2.595	2.033
	Not eligible	30	2.000	1.483
	Total	263	2.217	1.968
Agger	Did vote	196	3.010	2.102
Pol. Cyn.	Did not vote	37	3.270	2.177
	Not eligible	30	3.067	1.731
	Total	263	3.053	2.076
Pol. Alie.	Did vote	196	2.418	1.916
	Did not vote	37	3.162	2.224
	Not eligible	30	2.133	1.802
	Total	263	2.491	1.971
Pol. Eff.	Did vote	196	7.837	2.711
	Did not vote	37	7.324	2.651
	Not eligible	30	7.900	2.925
	Total	263	7.772	2.734
Cit. Duty	Did vote	196	9.474	2.066
	Did not vote	37	8.460	2.511
	Not eligible	30	8.967	2.152
	Total	263	9.274	2.175
Per. Cyn.	Did vote	196	2.036	2.355
	Did not vote	37	2.865	2.082
	Not eligible	30	2.467	2.377
	Total	263	2.202	2.340
Pol. Cyn.	Did vote	196	10.189	8.158
	Did not vote	37	11.730	7.270
	Not eligible	30	9.767	5.959
	Total	263	10.357	7.837

TABLE 56

ANALYSES OF VARIANCE OF VOTING IN LAST MUNICIPAL
ELECTION VARIABLE GROUP MEAN SCORES ON EIGHT
ATTITUDE SCALES

Scale	Source	SS	df	MS	F	P
Gr.-Jo.	GRP	27.52	2	13.76		
Pol. Cyn.	WTH	6145.50	260	23.64	.58	.56
Fritz	GRP	6.98	2	3.49		
Pol. Cyn.	WTH	1011.67	260	3.89	.90	.41
Agger	GRP	2.11	2	1.06		
Pol. Cyn.	WTH	1131.14	260	4.35	.24	.78
Pol. Alie.	GRP	21.54	2	10.77		
	WTH	1000.19	260	3.85	2.80	.06
Pol. Eff.	GRP	8.72	2	4.34		
	WTH	1957.59	260	7.53	.58	.56
Cit. Duty	GRP	35.25	2	17.63		
	WTH	1209.04	260	4.65	3.79	.02
Per. Cyn.	GRP	23.78	2	11.89		
	WTH	1416.54	260	5.45	2.18	.12
Pol. Cyn.	GRP	85.72	2	42.86		
	WTH	16066.68	260	61.78	.69	.50

$$F_{.10}(2,260) = 2.30$$

$$F_{.05}(2,260) = 3.00$$

$$F_{.01}(2,260) = 4.61$$

TABLE 57

PROBABILITY MATRICES FOR SCHEFFE MULTIPLE COMPARISONS
OF VOTING IN LAST MUNICIPAL ELECTION VARIABLE GROUP
MEAN SCORES

Scales	Groups		Did Vote	Did not Vote	Not Eligible
		means	5.026	5.865	4.700
	Did vote	5.026	- - -	.839 (.63)	.326 (.94)
Gr.-Jo. Pol. Cyn.	Did not vote	5.865	- - -	- - -	1.165 (.62)
		means	2.179	2.595	2.000
	Did vote	2.179	- - -	.416 (.50)	.179 (.90)
Fritz Pol. Cyn.	Did not vote	2.595	- - -	- - -	.595 (.47)
		means	3.010	3.270	3.076
	Did vote	3.010	- - -	.260 (.78)	.056 (.99)
Agger Pol. Cyn	Did not vote	3.270	- - -	- - -	.204 (.92)
		means	2.418	3.162	2.133
	Did vote	2.418	- - -	.744 (.11)	.285 (.76)
Pol. Alie.	Did not vote	3.162	- - -	- - -	1.029 (.10)*
		means	7.837	7.324	7.900
	Did vote	7.837	- - -	.512 (.58)	.063 (.99)
Pol. Eff.	Did not vote	7.324	- - -	- - -	.576 (.70)
		means	9.474	8.459	8.967
	Did vote	9.474	- - -	1.015 (.03)**	.508 (.49)
Cit. Duty	Did not vote	8.459	- - -	- - -	.507 (.63)
		means	2.036	2.865	2.467
	Did vote	2.036	- - -	.829 (.14)	.431 (.64)
Per. Cyn.	Did not vote	2.865	- - -	- - -	.398 (.79)
		means	10.189	11.730	9.767
	Did vote	10.189	- - -	1.541 (.55)	.422 (.96)
Pol. Cyn.	Did not vote	11.730	- - -	- - -	1.963 (.60)

* Significant at the .10 level.

** Significant at the .05 level.

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